nord stage 2

User Manual
Nord Stage 2 HA/SW

OS Version 1.x

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Print Edition 1.5

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ATTENTION*:POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE.*
AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L´USAGER.
CONFIER L´ENTRETIEN AU PERSONNEL QUALIFE.
AVIS*: POUR EVITER LES RISQUES D´INCIDENTE OU D´ELECTROCUTION, N´EXPOSEZ PAS CET ARTICLE A LA PLUIE OU L´HUMIDITET.*

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Le symbole éclair avec le point de flèche à l´intérieur d´un triangle équilatéral est utilisé pour alerter l´utilisateur de la presence à l´intérieur du coffret de "voltage dangereux" non isolé d´ampleur suffisante pour constituer un risque d´éléctrocution.

The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Le point d´exclamation à l´intérieur d´un triangle équilatéral est employé pour alerter l´utilisateur de la présence d´instructions importantes pour le fonctionnement et l´entretien (service) dans le livret d´instructions accompagnant l´appareil.

Instructions pertaining to a risk of fire, electric shock or injury to persons.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

Warning - When using electric products, basic precautions should always be followed, including the following:

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Additional Safety Information

No naked flame sources, such as lighted candles, should be placed on the apparatus;

Il convient de ne pas placer sur l´appareil de sources de flammes nues, telles que des bougies allumées;

Do not use the apparatus in tropical climates.

L´appareil n'est pas destiné á étre utilisé sous un climat tropical.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

L´appareil ne doit pas étre exposé á des égouttements d´eau ou des éclaboussures et de plus qu´aucun objet rempli de liquide tel que des vases ne doit étre placé sur l´appareil.

The maims plug is used as the disconnect device and shall remain readily operable.

Lorsque la prise du résau d'alimentation est utilisée comme dispositif de déconnexion, ce dispositif doit demeuré aisément accessible.

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1 Introduction

Thank you!

We'd first like to thank you for purchasing the Nord Stage 2! Our goal when developing the Nord Stage 2 was to create a flagship stage instrument encompassing the whole range of our company's accumulated expertise. Building on the success of the original Nord Stage, the Nord Stage 2 incorporates the best emulations of electromechanical and acoustic keyboard instruments on the market as well as a synthesizer section designed for maximum ease of use, yet offering wide sonic possibilities.

The Nord Stage 2 features outstanding classic keyboard sounds with true feel, from natural keyboard response to authentic sound. A medium weighted hammer action 88/76 note keyboard, or a 73 note semi-weighted waterfall keyboard makes this instrument the biggest in the Nord range, yet it weighs only 18,5/16,5/9,7 kilos which is an achievement in itself.

Features

The Nord Stage 2 has the following main features:

- Organ section with faithful reproductions of three classic organ models; B3, Vox and Farf (Farfisa).
- Piano section with acoustic grand and upright pianos, tine-based electric pianos, Wurlitzer electric pianos, Clavinet, and Electric Grand. The memory capacity for the Piano section in the Stage 2 is approximately 500 megabytes.
- Synth section with sample playback, FM, analog-style and digital waveforms in a subtractive synthesis architecture.
- Comprehensive effects section.
- A medium weighted hammer action 88/76 note keyboard with aftertouch, or a 73 note semi-weighted waterfall keyboard with aftertouch.
- An Extern section for controlling external MIDI instruments.
- A powerful Morph feature for applying multiple parameter changes to a sound with controllers.
- Splits and layers are easily set up by assigning instruments to Keyboard Zones.

But that's not all. There are two independent Slots "A" and "B", each containing a full setup of the Stage 2 instruments. This means that you have access to six instrument sections and two independent effect sections! Amongst other things, this allows for "dual manual" B3 organ emulation, and easy setup of all kinds of instrument layering and splits.

About the User Manual

The manual is arranged mainly as a reference manual. In many cases you'll get tips on how to practically use the functions, alone and also together with other functions.

Reading the manual in Adobe Acrobat Reader

This manual is also available in the digital PDF-file format. It can be downloaded, free of charge, from the Nord web site at www.nordkeyboards.com. With Adobe Acrobat Reader it is possible to use special navigation features like hyper links. This means that you can click with the mouse on a word or sentence and automatically get to the location indicated by the word/sentence.

Nord on the Internet

If you have access to the Internet, you're very welcome to visit www.nordkeyboards.com. There you will find the latest information about the Nord Stage 2 and other Nord products. You can also download new Nord Stage 2 sounds and software upgrades, free of charge.

Restoring the factory presets

The factory programs, samples and pianos are available as Nord Sound Manager backup files for download at the Nord web site at www.nordkeyboards.com or on the included Nord DVD.

OS upgrades

The latest OS version for Nord Stage 2 is available for download at the www.nordkeyboards.com website. Please visit our website from time to time, to make sure you have the latest version in your unit.

Free sounds

Since the Nord Stage 2 is designed as an open system, each and every piano and sample in the Nord Stage 2 can be replaced by you. This is done using the Nord Sound Manager application.

The Nord Stage 2 is compatible with the continuously expanding Nord Piano Library and the Nord Sample Library. These sounds are included on the DVD that accompanies the Stage 2. When new sounds become available, you can download these for free from the www.nordkeyboards.com website.

Disclaimer

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2 About the Nord Stage 2

Great sounds and maximum expressiveness are two essential features in the Nord Stage 2. To make a great tool we believe that you have to put all the focus on a few important things and that is exactly what we have tried to achieve. Let's have a look at some of the key features:

The Organ section

It's over ten years since we made our first digital model of a tonewheel organ. The Stage 2's dedicated organ section now uses our third generation B3 Organ model as found in the acclaimed Nord C2 Combo Organ.

Considered by many the most accurate emulation of the B3 ever, the Stage 2's organ model is based on the analysis of the signals from each of the 91 spinning discs inside several original instruments and painstaking work on understanding exactly how all the components interact with each other. The virtual circuitry reacts not only to the settings on the panel but also during the real time performance. The Stage 2 will faithfully reproduce the important foldback and energy robbing characteristics; the latter will produce the gentle compression effect that makes those lovely smears absolutely wonderful. There are 3 tonewheel modes that allow you to switch from a clean, factory spec'd instrument to a worn and battered workhorse with some 40 years worth of touring.

We also created carefully modelled emulations of two of the most famous transistor organs from the 1960's, the Vox Continental and the Farfisa Compact. Alongside the organ's themselves, the Stage 2 features our very latest rotary speaker simulation derived from the Nord C2. Incorporating the acoustic variations that occur as a physical rotating spreads the sound around in a room, they bring the Stage 2's organs to life with remarkable realism In terms of control, "Draw buttons" and LED bar graphs have replaced the original mechanical drawbars. This gives you the advantage of always having the correct drawbar settings after changing preset.

Piano Library v5

The Nord Stage 2 is compatible with version 5 of the Nord Piano Library. We have spent a lot of time and effort in creating our best piano sounds ever, to match the features available in the Nord Stage 2.

The piano sounds are included on the DVD and are organized in categories and in some cases available in various sizes (for the acoustic grand pianos and uprights). New sounds will be available free of charge on the www.nordkeyboards.com website.

Small, Medium & Large

The acoustic grand pianos and uprights are available in several sizes; X-Large, large, medium and small. The large, medium and small sizes share the same amount of velocity layers, and the same number of zones that are mapped across the keyboard. This means that you can rely on a consistent quality in regards to the playability and expressiveness in the basic sound of every piano, no matter what size you choose to install into your Nord Stage 2 (or any other Nord Piano Library compatible unit).

Small (Sml) is the version that uses the least amount of space in the piano memory, but still carry a big and powerful punch. This version does not contain any String Resonance samples at all. If an Sml piano is selected in the Nord Stage 2, the String Resonance feature will be disabled.

The Medium versions have pedal-down String Resonance samples in the important middle region of the range, but omit these in the lowest and the highest areas. This gives you a good ratio of functionality and size.

The Large versions have the pedal-down String Resonance samples all across the keyboard, providing you with the fullest of sounds, but also the largest size.

Some pianos are available in XL versions which means that they are fully mapped across the keyboard which increases the size a bit.

String Resonance

String resonance is the acoustic phenomenon which occurs inside every acoustic piano when strings, or parts of strings, resonate at their fundamental or harmonic frequencies when other strings are played. When playing any of the medium or large v5 pianos in your Stage 2 with this functionality is turned on, all notes you play will affect each other to reproduce the wonderful acoustics that occur inside an acoustic grand or upright piano.

String resonance is also very noticeable when you use the sustain pedal with the String Resonance feature enabled (again, on medium and large acoustic pianos only). With the sustain pedal held down, any notes you play will have a beautiful and familiar sound quality to them, enhanced by the un-dampened strings resonating in sympathy with the notes you are playing.

Another thing that the String Resonance produces is a crescendo effect. If you play the same key repeatedly with the same force, the sound will change. This is originally caused by the hammers hitting the vibrating string in various phases, and creates a nice, gentle fluctuation in volume and timbre in the Nord Stage 2.

Nord Triple Pedal

The Nord Stage 2 is compatible with the accessory Nord Triple Pedal (not included, sold separately) which offers an unprecedented functionality. The Piano Pedal adds dynamic control of the mechanical noise during operation, and the ability for you as a player to use half pedaling and "release and catch again" techniques.

⚠ *If you have purchased a Nord Triple Pedal, you need to select this pedal type in the System Menu.*

1. Hold Shift and press the System/Program 1 button beneath the LCD to enter the System Menu settings.
2. Press the Program Page ▸ button above the Value Dial until you reach the Sustain Pedal Type setting.
3. Turn the Value Dial to select "Triple". Press Shift to exit the menu and attach the Tripe Pedal to the Nord Stage 2.

The right pedal is the sustain pedal. If you operate this, all the notes that you play will sustain until the pedal is released again.

The left pedal is the soft pedal, also known as the Una Corda. When you press this pedal, all the notes you play will be slightly lower in volume and also have a slightly more subdued tone quality.

The middle pedal is the Latch/Sostenuto. In order for this functionality to be used, it has to be activated in the instruments. Read more about this in the section "Latch Ped & KB Gate" on page 21.

Pedal Noise

When the sustain pedal is operated on an acoustic grand or upright piano, many different sounds are produced by the mechanical components of that instrument's pedal mechanism. Your Nord Stage 2 reproduces many of these natural sounds. When the sustain pedal is pressed down, lifting the dampers from the strings, a beautiful sizzle can be heard.

When the pedal is released, the dampers are returned to the strings, which creates a different, muted type of sound. The Nord's sustain pedal is dynamic, allowing you to experiment with varying forces both for pressing the pedal down and also releasing it. If you allow your foot to "slip" off the edge of the pedal, it will spring back with full force, creating an obvious sound.

The "floor sound" is heard when the pedal reaches the bottom of its travel. You can experience this in isolation if you press down the pedal completely, then lift it less than halfway back up and then press down again.

If you lift the pedal and immediately press it down again, a very rich sound will be heard. Another big sound is The Stomp, which requires you to start with your foot above the actual pedal, in order to be able to reach the high velocity that is required to get this sound.

The Synth Section

The Stage 2's powerful synthesizer engine was built from the DNA of the Nord Wave. Capable of classic analogue synthesis, three operator FM synthesis, Wavetable synthesis and, crucially, compatibility with the Nord Sample Library.

The Nord Sample Library not only gives Stage 2 owners access to the huge free library of world-class sounds, including the famous vintage Mellotron and Chamberlin samples previously only available to Nord Wave and Nord Electro 3 users, but thanks to the included Nord Sample Editor for Mac and PC, allows user-created samples to be loaded into the instrument thus opening up a whole new creative world of sound.

The Synth engine itself features classic analogue synthesis with dual saw, hard sync and pulse wave modulation, three-operator FM synthesis with 32 different modulation frequencies, Wavetable synthesis with 62 waveforms and Sample based synthesis. A new great sounding multimode filter features 12 and 24 dB low pass, high pass, band pass and notch filters. And with an Amp envelope, Modulation envelope, an LFO, and Unison control, the Stage 2's synth capabilities are hugely powerful, delivering amazing on-stage sound.

The Synth section also features a new Arpeggiator which can be synchronized to either external clock or the Stage 2's Master Clock for perfect timing with several elements of the Stage 2, including its effects and the synth LFO.

3 Getting Started

Let's spend a few minutes to get acquainted with your new Nord Stage 2. In order to make you feel confident in using the Stage 2, this chapter is written as a guided tour. We will show you the fundamental aspects of the unit in as few steps as possible. We know you'd rather play than read.

Hook it up

1. Connect the Nord Stage 2 power cord to the unit and a mains power supply, connect the sustain pedal and a set of headphones or a sound system.

2. Make sure to turn on the Stage 2 first, before the sound system. Please be careful with the output volume.

For more information on all the connections on the Stage 2, look in the Connections chapter on page 60.

Programs

The Program area is the part of the panel that is located in the center of the panel with the display in the middle. Complete settings of every parameter on the panel are stored in the program memory of the Nord Stage 2, with enough room for 400 programs.

This is organized into 4 banks; each bank contains 20 pages of 5 programs each, all of which can be edited and replaced as you wish.

⚠ *The 100 programs in the D bank when the unit is shipped from the factory are duplicates of the programs in the A bank. This means that you can immediately start to save any edits you do in either the A or D bank without risking to overwrite any of the factory programs until you have decided which ones you want to keep.*

A complete set of the factory programs are available on the enclosed Nord DVD and on our website, you can always get back to the state of the program memories when the unit was new.

Select a program

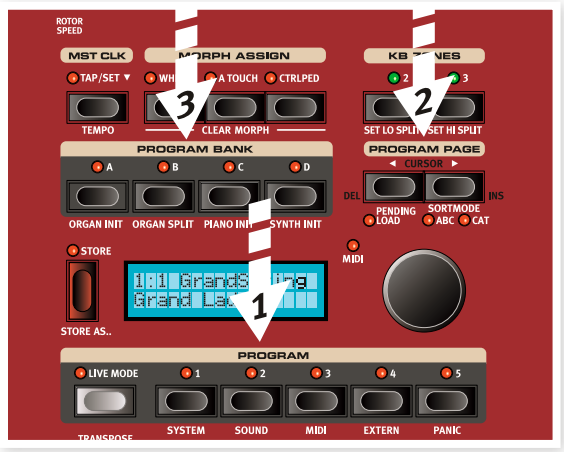
1. Programs are selected by pressing the five Program buttons, located below the display. An alternate method is to turn the Value Dial located to the right of the display.

2. The Pages are accessed by pressing the Program Page ◂ / ▸ buttons repeatedly, located above the Value Dial.

ℹ *Some of the programs are labeled with MW or AT. This indicates that the Mod Wheel or AfterTouch has an active part in the sound and invites you to use these performance features.*

3. The Banks are accessed with the Bank buttons A. B, C and D, above the display.

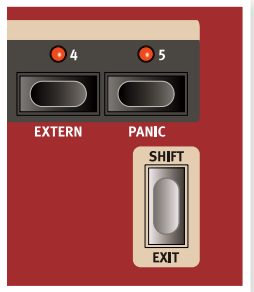
   A new program is immediately activated when you press a Bank, Page or Program button. If you want to navigate with the Bank and/or Page buttons and wait with the loading of a new program until you press a program button, this can be acheived by activating the Pending Load setting (Shift + Program Page ◂ button.



💡 *Press and hold either of the Program Page buttons to continuously scroll through the Pages.*

The Shift Button

Many buttons on the Stage 2 have a secondary function, which is printed immediately below the button. These additional functions and/or parameters are accessed by first pressing and holding Shift while pressing that respective button.



ℹ *The Shift button is also used to Exit from a menu or to cancel an ongoing Store operation.*

Sort Mode

There are three Sort modes in the Stage 2 that are used if you change programs by turning the Value Dial. The default mode is numerical - by turning the Value Dial, the programs are accessed in a numerically sorted order. (Bank A, Page 1, Program 1 to 5, Bank A, Page 2, Program 1 to 5 etc). Let's look at the alternate sort modes.

1. Press and hold Shift....
2. and then press the Program Page ▸ button.

This activates the alphabetical sort mode, which will display the programs in an alphabetical order when you turn the Value Dial.

3. To change the initial letter, press the Program Page buttons.
4. Hold Shift and press the Program Page ▸ button again to select the Category sort mode; programs will be displayed alphabetically within the selected category.

A program can be assigned to a category when it is saved or by using the Nord Sound Manager applications. Read more on categories on page 17.

5. To change the Category, press the Program Page buttons.
6. Hold Shift and press the Program Page ▸ button a third time to revert to the numerical presentation.

ℹ *The sort modes will only affect how the programs are accessed by turning the Value Dial. Pressing Bank, Page and Program buttons will select programs in the numerical fashion.*

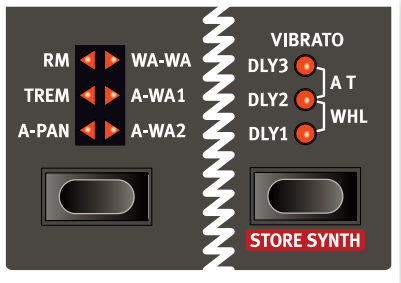
The Knobs

There are two types of knobs on the Nord Stage 2. The Value Encoders are surrounded by LED indicators; these provide a visual indication of that setting's current value. These parameters can be controlled using the Morph function.

The potentiometer-type knobs shown to the right are used, for example, in the Synth and Effect sections. As you scroll through programs, the physical positions of these knobs will not necessarily correctly reflect the active parameter values, but as soon as one of these knobs is turned, that respective parameter's value will immediately "snap" to the knob's position.

☼ *Hold Shift and turn a knob to view the stored setting of a parameter in the display, without changing it.*

The Buttons



Selector buttons are used to select one setting in an array. They have a set of round or triangular LEDs to indicate the current setting. Press the button several times to cycle through the possible options.

The On/Off buttons are used for activating a function or a group of functions such as effects and have a LED close to them to indicate the on/off status and sometimes also the source or zone.

ℹ *The on/off buttons of the Effect's shown here, also have a selector functionality. Press once to turn the Effect on, and press immediately again to select the "next" source.*

Edit a program

Editing a program is as easy grabbing a knob or pressing a button to change an existing setting; go ahead and give it a quick try.

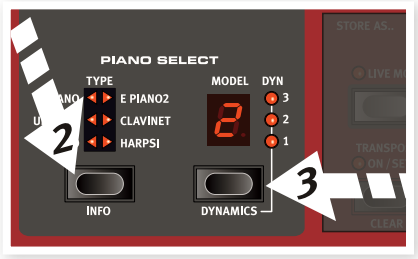
1. Dial up bank A, page 1, program 1 (the Imperial Grand Piano program) for this exercise.

The controls for the Piano instrument are located immediately to the left of the Program/Display area on the panel. Notice that the Grand type is the current type in the program.

Select a new piano sound

2. Press repeatedly on the Piano Type selector to browse the 6 types. Each piano type can hold several models.
3. Press repeatedly on the Piano Model button, located beneath the Model LED and play on the keys to listen to the different sounds.

This will cycle through the models that are available in the selected piano type.



Note that changing any parameter on your Stage 2's panel will immediately cause an asterisk to appear next to the current program number in the display.

This is provided for you as an indication that the program has been edited/changed, but not yet saved into memory. If you select a new program prior to performing a Store operation, your edits will be lost and that program will have its original settings the next time you select it.

Turning the Memory Protection Off

When the Nord Stage 2 is shipped from factory, the memory protect is turned on to prevent you from accidentally overwriting any of the original programs. This memory protect feature can be turned off by toggling a setting located in the System menu.

1. Hold Shift and press the Program 1/System button below the display.
2. Look in the display and scroll through the System Menu functions with the Program Page ◂ / ▸ buttons until you see the Memory Protect setting.
3. Change this setting to Off by turning the Value Dial.
4. Press Shift to exit the System menu.

Read more on the Menu settings, starting at “System Menu” on page 42.

Storing a Program

1. Press the Store button to the left of the LCD once, to initiate the process of storing the edited program.

2. The Store LED will begin to flash on and off and the display will ask you for the location to where you want to store the program.
3. If you want to store the edited version in the same location, replacing the original, simply press Store again. If not, use the Bank, Page and/or Program buttons to select a new location.

⚠ *The program which resides in the selected location will become active on the keyboard to allow you to play it and verify that you will not be overwriting something which is important to you.*

4. When you have found a suitable location for your program, press Store again to store your edited program.

ℹ *Press Shift/Exit once to abort an ongoing Store process if you change your mind.*

Read more about Store and Store As, renaming a program and assigning it to a category in the Program chapter, on page 17.

Live Mode

Nord’s Live Mode feature provides you with five temporary program buffers, any one of which will automatically save program edits for you on the fly without having to perform a Store operation.

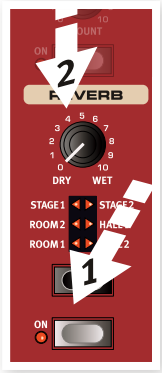
1. If you press the Live Mode button to turn Live Mode on, all changes to the panel settings you make will be continuously stored.
2. If you switch the power off, or select another program, the settings you made are still stored in the 5 Live Mode programs, so when you power up next time (or return to that particular Live Mode program) all settings in that Live program will be exactly as they were when you left them.

If the Live Mode is selected and you decide you wish to store the settings permanently as a program instead, you can do so using the standard methods (see above).

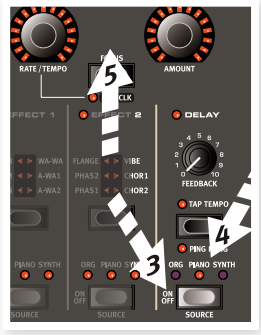
You can also store programs into anyone of the five Live Mode memory locations, in which case the program settings will replace that current Live Mode memory setting.

Press the Live Mode button again to exit the Live Mode and get back to the normal Programs.

Activate an effect



1. Activate the reverb by pressing the Reverb button.
2. Adjust the Dry/Wet balance with the knob above the reverb selector.
3. Activate the Delay by pressing the Delay source button once.
4. The indicator shows the instrument that is routed to the effect. If the Piano source LED isn’t lit, press repeatedly on the delay source button until it is lit.



5. The two Value Encoders in the effect section control the rate/tempo and the amount of the effect in focus.

If you have more than one effect activated in a program, you can shift the focus by pressing the Focus button between the encoders. Focus will automatically be set when a new effect is activated.

Hold Shift and press an effects source button repeatedly to quickly cycle through the sources.

Activate another instrument

1. With the piano still active, press the On/Off button located below the Synth Value Encoder. This will turn on the synthesizer and its sound will be layered on top of the piano.

All the synthesizer parameters on the panel can be adjusted if you want to edit the sound. An in-depth description of these parameters can be found in the reference chapter, starting at page 29.

To view a parameter setting without changing it, hold the Shift button and turn the parameter's knob. The setting in the program will be presented in the display.

The Slots

The Slot A and Slot B buttons below the Program buttons gives you instant access to two complete setups of the features on the Stage 2's panel. You can have one complete Organ/Piano/Synth/Extern/Effects setup on Slot A, and another complete setup on Slot B.

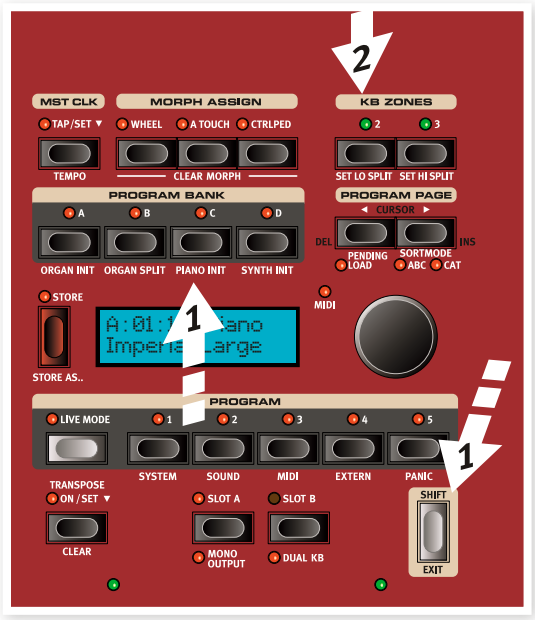
This allows you to switch in a seamless fashion between two different sounds, or to create huge programs with organs, two different pianos, two different synthesizers in layer or split keyboard setups. Let's do a split and then expand this with an additional layer combination.

If you press and hold a Slot button, you can copy the settings of any other Slot in the memory, by turning the Value Dial until you find the sound you wish to copy. Release the Slot button and the settings of the selected source will be copied to the edit buffer. Do not forget to save the new settings if you want to keep them in a Program.

Create a Split

1. Make sure that only Slot A is active. Hold Shift and press the Bank C/Piano Init button.

This activates the Piano and sets all the effects to be routed to the Piano as well. Using an Init is a great way to quickly get a foundation when you want to create a program.



2. Press the 2 KBD Zones button, located above the Value Dial.

This divides the keyboard into two zones, with the split indicated with a green LED that lights up above the keyboard. Pressing the 3 KBD button creates three zones with two split points, each indicated by a green LED.

Set the Piano to the Upper zone

3. Hold Shift and press the Piano Zone Select button repeatedly until the UP-HI LED's are lit and the LO LED is off.

This assigns the Piano to the upper zone of the keyboard. Feel free to use the Octave Shift buttons if you want to transpose the piano.

Set the Synth to the Lower zone

4. Hold Shift and press the Synth Zone Select button until the LO LED is lit and the others are off. This will activate the synth and assign it to the lower half of the keyboard.

Hold Shift and press repeatedly on the Set Lo or Set Hi Split buttons to move the split points.

Load a Synth sound

1. Hold Shift and press the Load Synth button. Let go of the buttons.

This allows you to select any of the 300 synth patches that are stored in the Synth memory area in the Nord Stage 2.

2. Turn the smaller Dial under the LED display in the Synth section to select the sound you want. The sound will immediately become active in the Synth.

3. Press Shift again to exit the Load Sound mode.

Create a Layer

Let's add a third sound to the piano-synth split we've just created.

1. Activate Slot B by pressing the Slot B button. This gives you access to another set of organ, piano, synth and effects,

2. Hold Shift and press Bank D/ Synth Init.

This will activate the synthesizer, and route all effects to the synth for Slot B.

3. Hold Shift and press the Load Synth button, and use the Osc Dial select a sound that could be appropriate to layer on top of the piano-synth split.

Activate both Slots

4. Press and hold Slot B and press Slot A to create the layer with both Slots controlled by the keyboard. Slot A will be the split program and Slot B will be layered on top.

The flashing slot LED indicates which slot is currently active for editing on the panel. Press the other slot button if you want to shift this focus to the other slot.

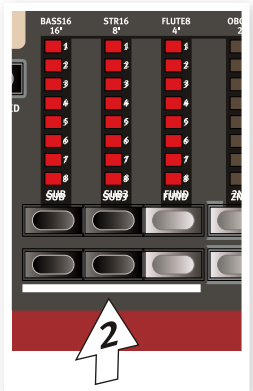
Any combination of instruments, splits and layers is possible, with one exception: you can use only one organ model for both Slots A and B (B3, Vox or Farf), although you are still able to use separate and distinct settings for that one organ model on the different slots (to create, e.g., a traditional dual-manual organ setup).

The Extern section can also be part of a split or layer scenario, e.g. if you wish to control an external unit from just one zone.

5. Turn off a Slot combination by holding the slot button you wish to keep and press the other slot button.

The Morph

By setting up a Morph, you can use a physical controller like the Wheel, an attached control pedal or the aftertouch on the keyboard to adjust one or several parameters, while you are playing. Let's try this out:



1. We will Morph the drawbars with the wheel, so start by holding Shift while pressing Bank B, the Organ Init button.

2. Make sure that the B3 model is active and "pull out" the first three drawbars on the left (Sub, Sub3 and Fund) by pressing the corresponding lower drawbar buttons.

If you need to push in a drawbar, use the upper drawbar button.

3. Press and hold the Wheel button in the Morph Assign group, above the display.

4. Pull out the four right-most drawbars all the way. The indicators will show single LEDs to indicate how much the Morph will affect the parameter.

5. Let go of the Morph Wheel button. Play a few notes or chords, while moving the modulation wheel.

As the wheel moves, the drawbars are pulled out and the sound changes accordingly.

One Morph source (Wheel, Control Pedal or Aftertouch) can control several parameters at once.

A Morph source can increase one parameter's value while decreasing the value of another at the same time. This makes it possible, for example, to crossfade between instruments.

Read more about the Morph functionality on page 19.

The Synthesizer

Let's have a look at some of the features in the Stage 2 Synthesizer.

1. Hold Shift and press the Bank D/Synth Init button above the display.
2. Press the Oscillator button until the sawtooth waveform is selected.
3. Play some keys and adjust the Freq dial in the filter section.
4. Turn the Oscillator selector dial beneath Osc LED display to audition the other waveforms that are in the sawtooth category.
5. Make sure that "dtn" is selected; this is a dual sawtooth.
6. Turn the Oscillator Shape dial to detune the two waveforms in semitone steps.

ℹ *The Shape and the Freq dials in the Synthesizer section have the LEDs surrounding them, which indicates that they can be Morphed.*

☼ *The Shape parameter have different duties, depending on the waveform selected. It controls for example the pulse width on some of the pulse waveforms; on some other waveforms it has no effect at all.*

7. Press the Oscillator button until Samp is selected. This is the sample playback feature.
8. Select which sample by turning the Oscillator dial.

This is the method to use if you have added samples from the Nord Sample Library or samples that you have made yourself with the Sample Editor.

Those samples are first selected in the oscillator. Then you can use the other synth parameters to sculpt the sound with the filter, envelopes etc. Read more about adding samples to the Stage 2 in the Sound Manager chapter on page 46.

☼ *You can store individual synthesizer sounds, by pressing Shift and the Vibrato button. There are 300 memory locations for synth sounds.*

Arpeggio clinic

Are you ready for some action? Let's try the Synth arpeggio.

1. Make sure that only the Synth section is turned on. Set the attack times to 0, the decays to 250 ms, select a sawtooth waveform and open up the filter a little bit. This will produce a percussive sound.

   Add some Mod Env control of the Filter Freq if you want to increase the pleasure.

2. Press the Arpeggiator On/Off button, play a chord on the keyboard and turn the Arpeggiator Rate knob. This will play the notes you hold down, one after the other in a repeating fashion.
3. Keep holding the keys and press the Arpeggiator Direction/Range button to select a different direction.

   When no direction LED is lit, the direction is Up, from the lowest key and up to the highest and then it starts over again. The other directions are down, up and down and random.

4. Hold Shift and press the Arpeggiator button repeatedly to select a range.

   When none of the range-LEDs are lit, the range is exactly the keys you hold down. A setting of 2 extends the range by transposing the arpeggio one octave up and plays this octave after the initial octave, 3 adds yet another octave and 4 adds four octaves to the keys you play.

5. Press the Arpeggio Hold button if you want to lift your fingers off the keys and have the arpeggio continue to play.

There are some programs in the Factory setup that utilizes the arpeggio with the synthesizer on its own or together with the other instruments in the Stage 2 just watch for an "ARP" in a program's name or the Arpeggio category.

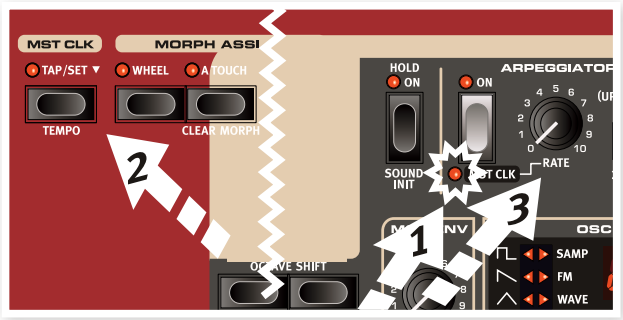
Master Clock

Now that we have an arpeggio going, let's try the Master Clock feature to synchronize the arpeggio and to bring in an effect as well.

1. Hold Shift and press the Arpeggiator button to lock the arpeggio to the Master Clock, the Mst Clk LED lights up.

   Don't worry if the music stops, we'll have it back on again soon. Keep those keys or sustain pedal down.

2. Hold Shift and press the Mst Clk button to dial in a tempo with the Value Dial. The display will indicate the BPM. Set this to 120 BPM for this exercise. Press Shift again to Exit.



Tap four times on the Mst Clk button to set the tempo on the fly.

3. Turn the Arpeggio rate knob to select the meter subdivision (or note values) that the arpeggio should play, look in the LCD while turning the knob. Notice how 1/4 are half the "speed " of 1/8. T after a numerical value indicates triplets. Set the subdivision to 1/8.

4. Turn on the delay and make sure that the Synth is the source to the delay by pressing the source button repeatedly until the Synth LED lights up.

   If you carefully adjust the delay time, you could match it to fit the rhythm of the arpeggio, but there is another way. Let's synchronize the delay to the same clock as the arpeggio.

5. Hold Shift and press the Focus/Mst Clk button between the effect dials, the Mst Clk LED lights up.

6. Turn the effect Rate/Tempo dial and look in the LCD to select the subdivison for the delay.

7. Try 1/16, which will be half the note value or twice the "speed" of the arpeggio. Turn up the Amount knob up to but not beyond 12 o'clock to hear the delay taps together with the arpeggiated notes.

The arpeggio, the LFO on the synth, the delay and the 2 effects can be synchronized to the Master Clock in this fashion.

And there is more, the Master Clock operates on both Slots simultaneously so you can control arpeggios, LFOs and effects on both Slot A and B.

There are many subdivisions and combinations to try out, do not forget to show yourself to your friends or family from time to time.

Some of the units have division settings that are larger than 1/1 that allows for sweeps that are longer that one bar. And you can of course synchronize some functions, while leaving others freewheeling if you like.

This completes our brief tour of the Stage 2. We hope that you now have the basic knowledge and the confidence to operate most of the functions on the front panel of your new instrument.

The following chapters contains the reference section, with the chapter on the Nord Sound Manager application after that, on page 48.

4 Program Section

The program section gives you access to performance functions such as recalling and storing of programs, system/menu pages etc. The four menus and their settings are covered in a separate chapter - starting on page 42. We'll explain the features in this chapter, starting with the buttons in the program section's lower left corner.

Transpose On/Set

You can transpose the Nord Stage 2 in semitone steps, with a range of +6/-6 semitones. Hold the Transpose button and set the transposition by turning the Value Dial. Press the Transpose button again to de-activate a transposition.

This feature is programmable; it will be saved and recalled as part of a program.

Slot Buttons A & B

You have two independent Slots for each program; A and B. Each Slot contains independent instances and settings of the three instrument sections and effects.

Both Slots can be activated if you want to use two instruments of the same type at the same time, like two Piano instruments or a Split Organ setup (read more about this feature on page 18).

You activate both Slots by simultaneously pressing both slot buttons. You have access to six instrument sections and eight effects sections (Effect 1 & 2, Delay and AmpSim/EQ x 2) when both slots are active.

One of the Slot buttons will flash to indicate edit "focus", that is which (of the two) Slot's settings that are currently shown and available to be tweaked. To switch edit focus to the other Slot, press the corresponding Slot button. To get out of a dual slot situation, hold the button of the slot that you wish to remain in focus and press the other one.

Copy settings from a slot

Press and hold one of the Slot buttons and turn the Value Dial. This action allows you to copy the settings from another Slot to the current Slot. The display will indicate which Slot of the Stage 2's entire program memory will be copied to the current Slot.

Mono Output

Hold Shift and press the Slot A/Mono Output button to set the outputs of the all the Stage 2 sound sources and effects to mono. This is a global setting, it will affect all the programs until it is deactivated or the Stage 2 is turned off.

ℹ *Not all sound sources will be stereo just because the Mono Output is not active. The organ is always mono source, as are some of the pianos, and the synthesizer's analog, FM and digital waveforms. Samples may be in stereo.*

ℹ *Routing a stereo sound source to a mono effect will produce a mono output. Read more in the Effects chapter on mono and stereo effects.*

Dual KB

The Dual KB feature allow you to control Slot B with an external MIDI keyboard, connected to the MIDI Input on the Stage 2.

The Stage 2 keyboard will control Slot A and the external keyboard will control Slot B. It is not possible to activate both Slots to be played by the Stage 2's keyboard in this mode.

This feature is ideal for live situations when you have a second keyboard in your rig and would in certain circumstances like to use the keyboard to play the Nord Stage 2 as a "second manual".

By activating Dual KB you can quickly switch between these modes without having to bother with MIDI menus. Having this function easily accessible on the front panel makes it simple to quickly enable and disable the mode, effectively switching your external keyboard in and out of the Stage 2's internal sound engines.

Another advantage with the Dual KB mode is that you can access the knobs and parameters for either panel from the Nord Stage 2, while the internal keyboard is always playing Slot A, and the external keyboard controls Slot B. For example, you can keep on playing Slot A with one hand on the Stage's keyboard while you simultaneously adjust the drawbars played with the second keyboard on Slot B.

The Dual KB setting is saved with a Program, together with all other Slot settings. This makes it easy to access any complicated keyboard setup with the push of a button - ideal for live situations.

ℹ *The MIDI Channel for the Dual KB feature is set in the MIDI Menu on the Stage 2. Read more on this on page 44.*

Shift / Exit button

Many buttons have secondary functions that you can access by holding Shift and pressing the button. The Shift activated functions are always printed below the corresponding button. For example, holding Shift and pressing the Program 3 button will allow you to access the MIDI Menu parameters.

In a few cases, the shift functionality can be achieved without holding the Shift button, but instead by double-clicking a button. This works primarily with Keyboard Zone selections and Effect source selections.

Hold Shift and turn a knob to view the stored setting of a parameter in the display without changing the parameters value.

Holding Shift and pressing a selector button (with the exception of the Piano Type button) will cycle through the settings in a counter clockwise fashion.

The Shift button also acts as an Exit button, which can be used if you want to exit a menu, or cancel a Store operation.

Live Mode

The special Live Mode can be described as "program memories that automatically and always save everything". If you activate the Live Mode, all changes to panel settings you make will be continuously saved. If you switch the power off, or select another program, the settings are still stored in the Live memory location, so when you power up next time (or return to that Live memory) all settings will be exactly as you left them. Having 5 Live memory locations means that five independent setups can be "saved" in this way.

If a Live memory is selected and you decide you wish to store the settings permanently as a program you can do so using the standard methods (see below).

You can also store Programs into the Live memory locations, in which case the program settings will replace the current Live memory settings. Note that when you store a program into either of the Live memory locations, the stored settings will be "transferred" to Live memory, any changes you make will be stored continuously, and you will not be able to revert back to the exact settings as they were when "stored".

Program Buttons

The 5 Program Buttons give you immediate access to all the 5 programs in a selected Program Page.

What is a program?

A program basically stores everything (except System functions which are mostly global). To understand the internal architecture in Nord Stage 2, keep the following in mind:

- For each Slot, settings for all three Instruments, the four Effects, and the Extern section are independent (except the choice of organ model, which is always shared between the two slots).
- A program stores the settings for both Slot A and B, it contains independent settings for six instruments, eight effects, and two Extern setups.
- A program also stores all settings from the Extern menu, except the Extern A & B MIDI channels and the Send on Load setting (read more on this in the Extern Menu chapter on page 45), and the output routings for each instrument (read more on this on page 42).
- The Global effects (Compressor/Reverb) and the Rotary effect affect both Panels, and the settings for these are stored with the program.
- Splits, layers (Keyboard Zones) and Morph assignments are also part of a Program.

System, Sound, MIDI, Extern

The Program buttons are also used to enter the 4 menus, if you press any of the first four while holding the Shift button. The settings in the menus are described in the Menu chapter that begins on page 42.

Panic

Hold Shift and press the 5th Program Button to execute an internal All Notes Off message and reset of some of the performance parameters. This can be used if notes gets stuck and sounds all the time during a MIDI- or live performance.

Store, Store As....

The Store button is used when you want to store an edited program, when you want to rename a program or when you want to change a program's category. Storing a program will overwrite the existing program in the selected memory location.

ℹ *When the Nord Stage 2 is shipped from factory, Memory Protect is set to "On". To be able to store Programs, you need to change this to "Off", read more on how to do this on page 10. The Memory Protect function does not affect the Live Mode memories.*

Storing a Program

To store a program without changing its name or category, proceed as follows:

1. Press the Store button once. The Store button and the currently selected program button indicator starts blinking, and the display will read “Store to X: X : X” (the current Bank, Page and program number), and the program name.
2. Next step is to select a Bank/Page/Program location to store the edited program to. Use the Bank, Page and the Program buttons to select a location, or browse by turning the Value Dial. You can also store a Program to one of the 5 Live memories. The settings in the programs that you browse will become active, which allows you to verify by playing on the Stage 2 that it is safe to overwrite a program.

⚠ *To cancel an ongoing Store operation, press Exit (Shift).*

3. When you have found a location for your new Program, press Store again to confirm your intentions. The display confirms with a “Program Stored!” message for a short duration.

Naming a program

Naming a program and/or changing a program’s category is done with the Store As… procedure:

1. Hold Shift and press the Store As... button once. The Store button indicator starts flashing, and the upper row in display will read “Name”, the current category to the right and the current name on the lower row.
2. Turn the Value Dial to change the category.
3. Press the Page ▸ button to move the cursor to the first character in the name.
4. Use one of the following methods to name your program:

- You can move the cursor position left or right by using the Program Page buttons.
- When the cursor is at the position where you want to enter/change a character, you can use the Value Dial to scroll through all available characters (a-z, A-Z, 0-9, space and a hyphen “-”).
- By holding down Shift and pressing the Ins (Page ▸) button, you enter a blank space at the cursor position.
- By holding down Shift and pressing the Del (Page ◂) button, you erase the character at the cursor position.
- Alternatively, you can press and hold down the KB Zones 2 or 3 button. This will bring up the characters in the display with the focus on the character the cursor was last on. Use the Value Dial to select a character at the current cursor position. When you release the KB Zone button the cursor automatically moves to the next position.

5. Press Store again and then use the same methods as outlined in “Storing a Program” above to store your name with the program.

⚠ *To cancel an ongoing Store operation, press Exit (Shift).*

💡 *Naming Programs and setting categories can also be done with the Nord Sound Manager, read more on this on page 52.*

Categories

Every program can be assigned to a category as described in the previous section. This can help you find e.g. all the programs in the “Organ” category if you look for a specific organ sound. The category is shown in the upper row of the display like in the example of a program in the “Grand” category.

There are 21 different categories to choose from.

Categories		
Acoustic	FX	String
Bass	Grand	Synth
Clav	Harps	Upright
Arpeggio	Lead	Vocal
E Plano1	Organ	Wind
Wurl (E Piano 2)	Pad	User
Fantasy	Pluck	None

💡 *Use the Cat Sort mode to display only the programs in a selected category. Read more on how to do this on page 18.*

Value Dial

The Value Dial to the right of the Display is used to select programs, to enter system parameter values and to enter characters in program names.

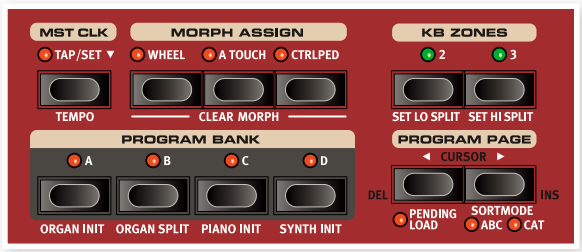
MIDI Indicator

The MIDI LED will indicate incoming MIDI messages at the MIDI Inputs or through the USB connector if the USB-MIDI is active.

ℹ *Short flashes indicates any kind of incoming MIDI data, longer flashes indicates MIDI data that the Stage 2 actually uses (the data has the correct MIDI channel etc.).*

Program Bank buttons

Select a desired Bank by pressing a Program Bank button A - D. Each Bank holds 20 Pages, with 5 programs in each Page.



Organ Piano Synth Init

These buttons can be used together with the Shift button to initialize the current program. The “Inits” provides a quick way to activate a single instrument on the Stage 2 and to route all effects to it, while turning off the other instruments. The settings that the activated instrument is initialized with, come from the stored settings in the active program.

Even if an instrument is not active in a Program; all its settings are still stored in the Program.

Organ Split

The Organ Split Init creates a split keyboard setting that emulates a dual manual organ setup. The lower part of the Stage 2’s keyboard will use Slot A and the upper part Slot B.

Program Page buttons

The Program Page ◂ and ▸ buttons are used to select one of the 20 available program pages. Every Page holds 5 programs, every Program Bank holds 20 Pages. Pressing a Page button will immediately load the program number on the new Page.

Pending Load

If you want to navigate with the Bank and/or Page buttons and the Value Dial and wait with the loading of a new program until you press a program button, activate Pending Load - hold Shift and press the Page ◂ button. When this is active you can press the Bank and Program Page buttons, and scroll with the value dial to “browse” and display the program names in the LCD without actually loading them. The Program Button LEDs will flash to alert you that the program selection will not be activated until you confirm this by pressing a Program Button.

Sort Mode

Hold Shift and press Page ▸/to select the Category sort mode, hold Shift and press Page ▸ again to select the alphabetical sort mode. These modes affect the presentation of programs when you turn the Value Dial.

The Cat Sort will display the programs in a category. To change the Category, press either Page button. There is a list of categories on the previous page 17.

The Abc Sort will display the programs alphabetically, based on their names. To change the initial letter, press either Program Page button.

The Program Bank and Program buttons are not affected by the sort mode. If you e.g. use the Abc Sort to dial up a program named Betty 1, and this is located in Bank 2, Page 20, Program 3, pressing the Program 4 button on the panel will call up the Bank 2/Page 20/Program number 4, no matter what that program name is.

Cursor, Del, Ins

During a Store As… procedure, the Program Page buttons are used to move the position of the cursor in a Program name, the actual character in the position can be set by the Value Dial.

Hold Shift and pressing Del or Ins will delete or insert a character in the program’s name at the position of the cursor.

Mst Clk

The Master Clock allows you to synchronize several components in ths Nord Stage 2: the Arpeggio, the synth LFO, the Delay and Effects 1 and 2. Not only can you make these run in sync, you can also select different subdivisions (or “speeds”) for these units, to create some great rhythmic effects.

Tap the Mst Clk button four times to set the tempo. The display will show how many taps you have entered in case you get lost.

Hold Shift and press the Mst Clk button to open the Master Clock tempo setting, where you set the tempo by turning the Value Dial. Press Shift again to exit. A set tempo will be saved in a Program.

You can also hold down the Tap/Set button to open the Master Clock tempo setting.

When the Master Clock tempo is set, you can select a subdivision of that tempo for the various functions that can be synchronized to the Master Clock. Any changes you make to the Master Clock tempo will be followed by all the functions in the Stage 2 that are synchronized to it.

The subdivisions are described in greater detail in the sections that covers the units that can be synchronized, the LFO, the arpeggio and the effects.

External Sync

The Master Clock on the Stage 2 can be controlled by incoming MIDI clock messages. This is an automatic behavior, as soon as the Stage 2 receives MIDI clock on the MIDI input or the USB MIDI input, the Master Clock will be synchronized to the incoming external clock.

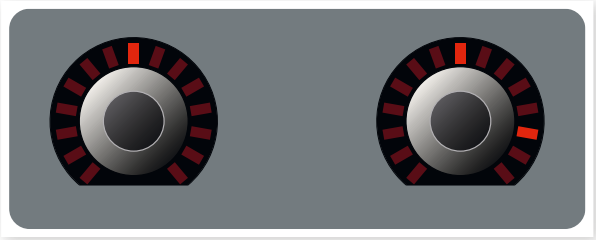
When the Master Clock is locked to an incoming clock, EXT will be displayed in the LCD if you press the MST CLK button, together with the incoming tempo in BPM.

Morph Assign

The Morph is a very powerful tool, which allows you to control several parameters at once with one “source”. You can use a foot pedal to control the level balance between a piano and a synth sound, use the wheel to do a major change in the drawbar settings of a B3 sound, and increase the amount of a selected effect by aftertouch - all at the same time.

The three Morph Assign buttons represent the three Morph Sources and are located above the Program Bank buttons.

You activate a Morph by holding one of the Morph Assign buttons and at the same time operate a parameter knob in the desired direction. It is important to note that you should ensure that the parameter(s) you wish to include in your morph are stored at the desired “starting” value(s) before starting this procedure.



The setting of the parameter in the program is the “first” setting (shown on the left dial here), and then you turn the knob to the second setting, which will be the maximum setting that can be set with the Morph source.

If you double-tap on a Morph Assign button, the Morph assign mode will latch and you can take your time to adjust one or several parameters to the desired effect. Press the button again to exit the latched mode.

One Morph Source can control several parameters at the same time. Morphs can also influence parameters in both positive and negative directions.

Morphs operate across the two Slots.

Morph Destinations

You can use the Morph to control all the settings of the rotary encoders (the knobs that show parameter values with LEDs), the Rotary speed and the organ drawbars. Apart from the number of assignable parameters, there is no limit to how many parameters you can control simultaneously using Morph.

The following parameters can be controlled by the Morph sources:

- The Level setting for all Instruments.
- The Shape setting in the Synth oscillator section.
- The filter Frequency setting in the Synth filter section.
- The Drawbars in the Organ section.
- The Effect Rate/Tempo setting for the individual effects.
- The Effect Amount setting for the individual effects.
- The Parameter setting in the Extern section (read more on page 40).
- The Rotary Speed (only with the Wheel option. This enables you to set Rotor Speed continuously, instead of just alternating between two fixed speeds.

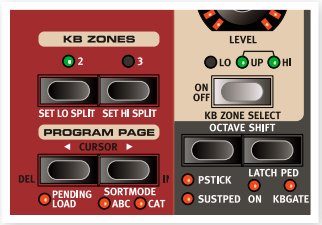
Clearing a Morph

Hold Shift and press a Morph Assign button to clear all Morphs for this source on the Slot in focus. To clear a particular assignment, hold the Morph Assign button and operate the control to remove the “gap” between the programmed setting and the Morph setting.

KB Zones

The Nord Stage 2 keyboard can be split in up to three keyboard zones; Lower (LO), Upper (UP) and High (HI). Any of the Instrument sections can then be assigned to any (or all) of these zones.

The KB Zones buttons split the Stage 2’s keyboard into two or three zones. After you have activated a split, use the On/Off - KB Zone Select buttons beneath each instrument’s (or the Extern’s) Value Dial to assign an instrument to one or more zones.



When a split is active, hold Shift and repeatedly press an instrument’s, or the Extrern’s KB Zone Select button to assign the instrument to one or several zones. The three Zone LEDs beneath the instrument’s Level Rotary will indicate the assignment.

Hold Shift and press KB2 or KB3 to move the boundaries of the lower, upper and high zones. The split points are indicated by green LEDs above the keyboard.

Both Slots use the same KB Zone configuration, instrument assignments are individual.

Read more on creating splits on page 20.

5 Common features

The Nord Stage 2 instruments, effects and the Extern section share a few common features and characteristics.

Instrument & Extern Controls

The Nord Stage 2 features 3 different instruments; Organ, Piano and Synthesizer. Each instrument is multi-timbral with two parts which means that there are actually two sound engines for each Instrument. These “engines” are internally connected to the Slots, one for Slot A and another for Slot B.

ℹ *The Organ behaves a little differently in that there is actually only one “engine” but it supports two manuals with separate drawbar settings.*

The Extern sections can be used to control external MIDI instruments (or to transmit MIDI data to e.g. a sequencer). The Slot A Extern can transmit on one MIDI channel, the Slot B Extern on another.

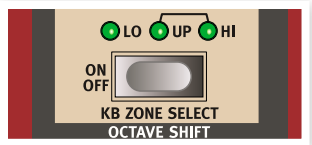
Level encoders

The Level encoders are located at the top on each section and allows you to adjust the volume for each instrument.

The instrument level can be controlled in real time with the Morph. Read more on Morphing on page 18. The Extern’s Level encoder is used to transmit MIDI data.

On/Off buttons

The On/Off buttons are reassuringly used to turn sections/instruments on, or to turn them off. When a section is on, the corresponding LEDs in that section will be lit up and the green LEDs will indicate which zones on the Stage 2’s keyboard will control the instrument. The alternative functions of selecting a zone with these buttons are not only accessed by holding the Shift button, you can also double-tap on them to assign an instrument to a zone (provided that the keyboard is split).



KB Zone Select buttons

The KB Zone Select functionality of these buttons allow you to assign an instrument to Keyboard Zones. Hold Shift and press the buttons to select one of the zone alternatives.

Creating a split

It is very easy to create a split where different instruments are assigned to different keyboard zones. Proceed as follows:

1. Activate two instruments by pressing the KB Zone Select buttons in each corresponding section, which makes the KB Zone LEDs (Lo/Up/Hi) light up.
2. Press the KB Zones 2 button, located above the Value Dial. This splits the keyboard into two parts, an upper and a lower zone. The split point is indicated by a green LED above the corresponding key on the keyboard.
3. Assign one of the active instruments to play on the lower Keyboard Zone by holding Shift and then press the KB Zone Select button in the instrument’s section until only the LO KB Zone indicator is lit.
4. Assign the other instrument to the upper half of the keyboard. Hold Shift and pressing the KB Zone Select button for the other instruments section until both the UP/HI KB Zone indicators are lit.

   The lower half of the keyboard will play one instrument, and the upper half will play the other.

You can also step through the different Keyboard Zone assignments by double-clicking the KB Zone Select button. This is a convenient method when you can only use one hand and cannot reach the Shift button.

Activate all three Keyboard Zones by pressing the KB Zones 3 button. This splits the keyboard into three zones. Press the Shift + KB Zone Select button (or double-click the KB Zone Select button) for an Instrument section, to step through the following options:

- LO/UP/HI indicators lit - the instrument will play in all the three zones 1-3.
- LO indicator lit - the instrument will only play in zone 1.
- LO/UP indicators lit - the instrument will play in zones 1 and 2.
- UP indicator lit - the instrument will only play in zone 2.
- UP/HI indicators lit - the instrument will play in zones 2 and 3.
- HI indicator lit - the instrument will only play in zone 3.
- No indicator lit - the instrument will not be controlled at all from the internal keyboard, but it can be controlled with incoming MIDI. This alternative is only available when an instrument has been assigned an individual MIDI channel. The panel controls are however active, you can still change the instrument’s parameters on the Stage 2’s panel.

Setting split points to change Zone ranges

Adjust the splits for zone 2 and 3 in the following way:

- Hold Shift and press the Set Lo Split button repeatedly. The green split indicator above the keyboard move between the available splits. There are splits at C and F in each octave.
- The same procedure is used but with Set Hi Split button, to set the splits for zone 3.

When using two zones, the split is set with the Set Lo Split button.

Keyboard Zone splits are shared between Slot A and B.

Layering instruments

When two or three instruments are assigned the same keyboard zones, they're layered, they play at the same time. Combinations of layers and splits are possible. A piano can be assigned on its own to the Upper Zone, and "continue" and be layered with an organ up in the Hi Zone. Another way to layer instruments is to activate both Slots simultaneously.

Octave Shift

You can use the Octave Shift buttons to shift the pitch up or down in octaves, within the instrument's note range.

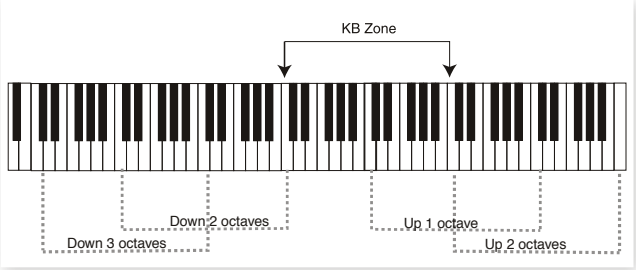
Note Range

Each instrument in the Nord Stage 2 has a finite note range:

- The Organ extends one octave below and one octave above an 88 note keyboard range.
- The Piano extends one octave below the 88 key range, but not above.
- The Synth extends one octave in either direction, just like the Organ.

An instrument cannot be transposed so that non-existing notes would end up in the current Keyboard Zone. When an instrument is used over the whole keyboard, you can only transpose a maximum of one octave up or down.

When you are using splits, if a piano is assigned to a zone with a range of 2 octaves, the Octave Shift buttons can be used to transpose the piano up or down. As long as the 2 octave range are within the available 9 octaves. The whole note range of any instrument, within any set Zone range, is always accessible.



In the illustration above, a piano has been assigned to play in a KB Zone stretching from middle C4 to C6. Without Octave Shift, the actual note range that will be played will be the same as the set zone. The dotted lines show which note range will be played in the set zone when using Octave Shift. In this example you can transpose the piano up or down two octaves to play any two octave note range from the KB zone.

PStick & SustPed

These settings are used to control whether or not an instrument (or the Extern section) should respond to a connected Sustain Pedal and/or to the Pitch Stick.

Hold Shift and press the left Octave button in the corresponding instrument section, to activate the sustain pedal for an instrument. The Sustped LED is lit when this is turned on. Press again to activate Pitch Stick reception and a third time to have both functionalities. A fourth press will turn them both off, as indicated by the LEDs.

The bend range is fixed to -/+ 2 semitones

In most of the factory programs, the organ has neither sustain, nor pitch stick activated, the piano has sustain but not pitch stick active and the synth has usually both activated. But there may be exceptions to this. Change this as you like, do not forget to store any changes that you wish to keep.

Latch Ped & KB Gate

The Latch Pedal feature allows you to latch arpeggios in the synth, sustain chords or individual notes on selected instruments by operating a pedal, without affecting other instruments or the functionality of the sustain pedal. The Latch is activated for the individual instruments by holding Shift and pressing the right Octave (Latch Ped) button; the On LED lights up. This behaves like the sostenuto functionality on a grand piano; only the keys that are pressed down when the pedal is activated will sustain.

If you use a Nord Triple Pedal, the center pedal on that unit will be the designated latch pedal. A standard sustain pedal connected to the Rotor/Latch input can also be used. If you use the Rotor/Latch input, you need to change a setting in the System Menu, read more about this on "Rotor/Latch Pedal Func" on page 43.

The KBGATE feature allows you to disable an instrument from being triggered by the keyboard, for as long as the latch pedal is operated.

Both these features can be used simultaneously when both LEDs are lit.

Output Routing

The Nord Stage 2 has four audio outputs. Each instrument can be freely assigned to output 1&2 (default) or 3&4 in stereo, or to output 3 or 4 in mono. The output routings can be set for each program, or globally for all programs. The Global setting is the default setting. In global mode, the routing settings stored with the program are overridden by the global settings. See the System Menu chapter on page 42 for more information about the output routings.

Dual Slot setups

Press both Slot A and Slot B buttons. Both Slot LEDs light up, and both Slots become active. One of the Slots is in focus, its panel settings are currently shown and can be edited. The Slot in focus is indicated by a flashing Slot LED. Press the other Slot's button to shift the focus.

To disable one of the slots, hold the Slot button for the slot you want to keep active, and press briefly the Slot button you want to disable.

To copy any other Slot's settings to the currently active Slot, press and hold that Slot button and turn the value dial to the desired alternative Slot. When you release the Slot button, the copy operation is performed.

When you have both Panels active you have access to two of each Instrument section, and two Effect sections. Amongst other things, this allows you to play two sounds from each Instrument section simultaneously, e.g. a Clavinet and a Electric Piano or two Synths.

For the Organ section, things work slightly differently. Instead of two completely separate organ sections, you have one organ engine with two manuals, that can be set to different drawbar settings, like on an original B3 or a dual manual Farfisa or Vox.

Using an external keyboard (Dual KB)

If you would like to use an external keyboard to control Slot B, set it up as follows:

Select a MIDI channel to transmit on the external keyboard, and select the same MIDI channel as the "Dual KB" channel in the Nord Stage 2 MIDI page menu - read more about this on page 44.

Press Shift and the Dual KB button, the Dual KB indicator lights up.

The internal keyboard will control Slot A and the external keyboard will control Slot B. It is not possible to activate both Panels in this mode.

This function is ideal for live situations when you have a second keyboard in your rig that you mostly use to play its internal sounds, but would in certain circumstances like to use to play the Nord Stage 2 "second manual". By activating Dual KB you can quickly switch between these modes without having to bother with MIDI menus. Having this function easily accessible on the front panel makes it simple to quickly enable and disable the mode, effectively switching your external keyboard in and out of the Stage 2's internal sound engines.

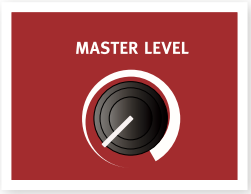
Another advantage with the Dual KB mode is that you can access the knobs and parameters for either panel from the Nord Stage 2, while the internal keyboard is always playing Slot A, and the external keyboard controls Slot B. For example, you can keep on playing Slot A with one hand on the Stage 2's keyboard while you simultaneously adjust the drawbars played with the second keyboard on Slot B.

The Dual KB setting is saved with a Program, together with all other Slot settings. This makes it easy to access any complicated keyboard setup with the push of a button - ideal for live situations.

Using multiple keyboards

Sometimes you may want to control the Nord Stage 2 from more than two keyboards. For example, you may want to have two external keyboards for Organ A and B, while keeping the internal keyboard for the piano sounds. Thanks to the flexible MIDI configuration of the Nord Stage, this is no problem at all. Read more in the MIDI chapter.

Master level



The Master Level control is located in the upper, left area of the panel. This control sets the overall output level of the Nord Stage 2, at the line level and the headphone outputs.

This is not a programmable control.

6 Organ

The Nord Stage 2 features three organ models, all digitally modeled; a tonewheel/B3 organ and two transistor organs (Vox and Farfisa).

The Organ section features three main areas:

- The Drawbar section where you set-up the basic organ sound.
- The Percussion area is where you control the percussion effect (available to the B3 organ model only).
- The Vibrato/Chorus area is where you select the chorus and/or vibrato effect depending on the selected organ model.

While holding a drawbar button, you can press its sibling button to momentarily auto-increment/decrement in the opposite direction.

With the Farf model, drawbar buttons act as switches, toggling each register on or off.

Selecting The Organ Model

You select which model to use with the Organ Model button. Only one model can be used at a time in a Program.

Drawbars and buttons

The drawbars on the Nord Stage 2 are represented by buttons and LED chain graphs instead of ordinary mechanical drawbars. This gives you a big advantage: when you change preset or program, the correct drawbar settings are recalled immediately and shown by the LEDs. It's very easy to get the hang of changing the drawbar settings in a natural way with the buttons.

The drawbars behave similar to their mechanical counterparts. On the B3 and Vox models you "pull out" and "push in" the drawbars using the drawbar buttons.

The buttons are special in the way that they auto-increment/decrement the drawbar value when they are held down. If you hold a drawbar button the corresponding drawbar setting will continue to increment or decrement (within its range) until you release the button.

The drawbars can be Morph controlled, if you want to make dramatic changes with for example the Wheel or a control pedal.

The B3 Model

The B3 model is based on a digital model of the classic electro-mechanical tonewheel organ. This simulation utilizes innovative and advanced methods to capture every nuance of the original sound, here are some examples:

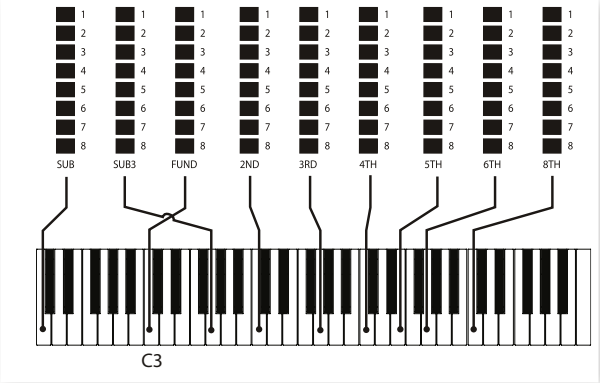
- An extremely accurate digital model of the original chorus and vibrato scanner.
- Modeling of the individual random contact bounces for each harmonic.
- Modeling of the unique frequency characteristics of the built-in pre-amplifier, which forms the "body" of the sound.
- Simulation of the energy robbing on the tone wheels that results in the typical "compressed" sound.
- Authentic tuning of the tonewheels according to the original design.
- Extremely fast keyboard response.
- Full polyphony.

B3 Drawbars

The harmonic intervals for the tonewheel organ are printed on the panel below the drawbars.

For basic drawbar operation, please refer to “Drawbars and Buttons” on the previous page. Each drawbar represents a partial with a fixed harmonic interval in relationship with the played note.

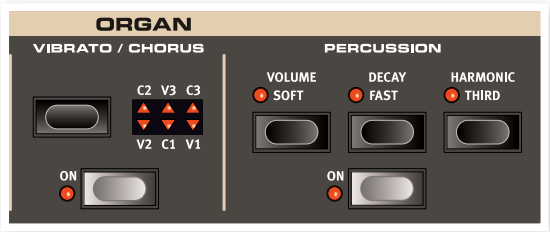
The illustration below shows the pitch interval among the nine drawbars when the key of C3 is played. Note that the SUB3 drawbar actually is a 5th above the fundamental harmonic. However, in most situations it is perceived as sounding below the basic harmonic.



Vibrato & Chorus

The original vibrato and chorus scanner in a tonewheel organ consists of a modulated delay line in combination with a rotating scanner. For the Vibrato effect, phase shift is applied to the signal. For the Chorus effect, the phase-modulated signal is added to the original signal.

Three different types of choruses (C1 - C3) and three different types of vibratos (V1 - V3) are available. Select one of these types by pressing the Vibrato/Chorus selector button. The effect can be activated/deactivated for both Slots individually by pressing the Vibrato/Chorus button for the Slot A and Slot B “manuals”.

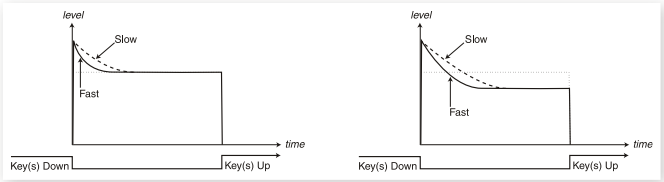


Percussion

The Percussion effect adds extra attack to the sound by having a single envelope generator controlling either the 2nd or 3rd harmonic.

The envelope “opens up” for a short moment in the beginning of the sound when you press the key(s). The percussion is a single-triggered non-legato effect. By “single-triggered” we mean that the percussion is only present when you hit the keys when no other note is sounding. In other words, if you play a note or a chord and then add on more notes without releasing the previously pressed keys, there will be no percussion effect in the new notes. You have to release all keys to be able to play new notes with the percussion effect.

The Volume Soft button toggles between Normal and Soft percussion level. The Decay Fast button toggles between Slow and Fast decay times.



Percussion Soft Percussion Normal

The Harmonic Third button toggles between using the 2nd or 3rd partial as the source for the percussion effect.

⚠ *The percussion can be used on Slot A or on Slot B provided that both slots are not active at the same time in a layer or split keyboard configuration. If you use a layer or a split, then percussion will only be available on Slot B.*

Key click control

The key click produced by the random contact bounces is an important audio artifact in the B3 model. This quickly became a desirable effect amongst musicians. You can adjust the click level in the Sound menu, read more about this on page 43.

☼ *Do not forget to try out the three tonewheel modes that are also available in the Sound menu. These will dramatically change the sound of the B3 model from a squeaky clean unit to a battered, old workhorse.*

Organ Preset I & II

You can store two organ presets/settings within a single program, and also separately for Slot A and Slot B, for each organ model. This provides a quick way of changing between two organ sound variations, without having to change programs or slots.

You change between Presets I & II by pressing the Preset II button. A preset stores the drawbar settings and the Vibrato/Percussion (on/off) settings.

The Vox Model

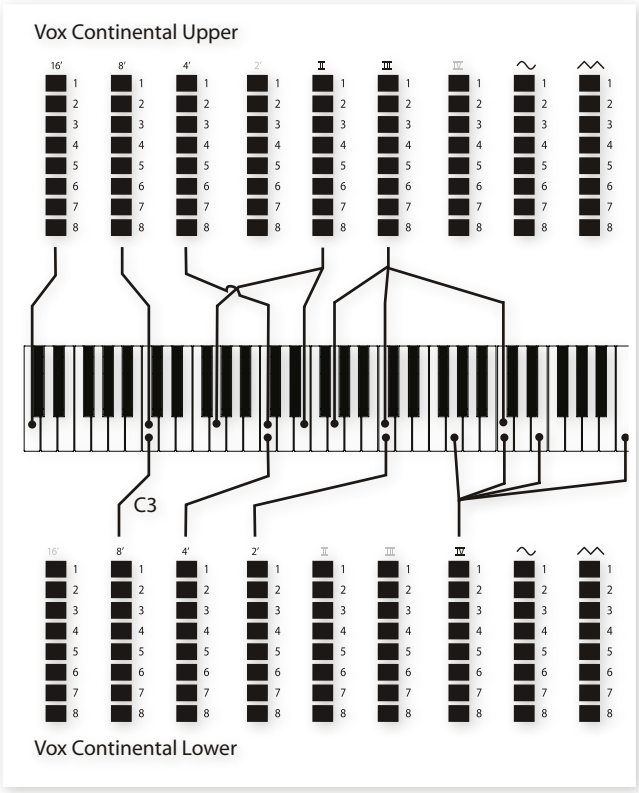
The original Vox™ organ is probably the most famous of all the transistor based combo organs that emerged in the early 60's. Transistor technology made it possible to manufacture compact and portable organ instruments. Compared to the mighty sound of tonewheel based organs, transistor organs generally sounded reedier and weaker, but this one had a distinctive sound character which together with the portability and cool design (inverse colored keyboard and chrome "Z-frame" stand) made the instrument massively popular at the time. The sound is timeless and recreated faithfully in the Nord Stage 2.

Vox Drawbars

The labels used for the Vox drawbars are printed on the row directly above the drawbar LEDs.

For basic drawbar operation, please refer to "Drawbars and buttons" on page 23.

The seven drawbars to the left control the level of each partial. Each partial has a fixed harmonic interval relating to the played note. The illustration below shows the pitch interval of the drawbars when the key of C3 is played. The intervals vary for the upper and lower manual on the original instrument, but are identical on the Nord Stage 2.



The two drawbars on the right control the sum of all partials in the form of a filtered signal sounding soft and dark, and an unfiltered signal sounding bright and intense.

⚠ *If these two drawbars are both fully "pushed in", the Vox organ will not produce any sound.*

Vibrato

There are several types of vibrato and choruses available for the Vox model, which is activated using the On button in the Vibrato section. The V3 setting is the one that is modeled after the original instrument.

The VX models vibrato setting is common for both the swell and great manual.

The Farf Model

The typical "buzzy" sound of this vintage instrument is one of the most distinct and easily recognizable organ sounds ever created; yet it is actually possible to get quite a wide range of sounds out of the instrument. Note that the voices aren't supposed to replicate the instruments they are named after, but rather to describe the basic tonal characteristic of the voice; Flute - soft, Oboe - reedy, Trumpet - brassy etc..

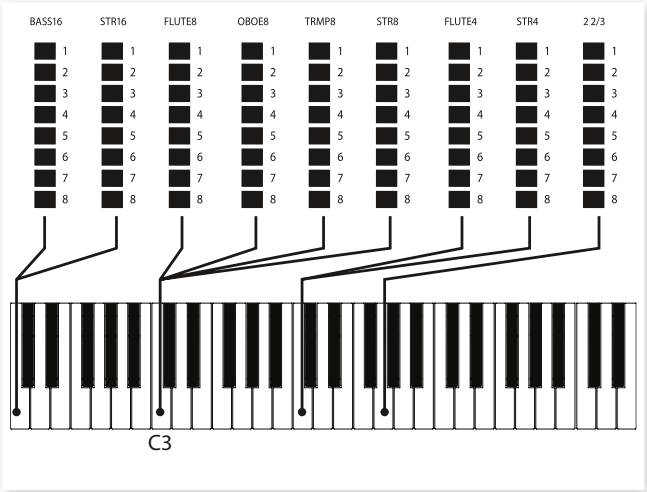
Farf Registers

The labels used for the Farf drawbars/registers are printed on the upper row above the drawbar LEDs.

The drawbars act as on/off switches, or "register selectors" when the Farf model is selected. Instead of drawbars, the original instrument featured switches to select instrument voices (actually different filter settings) in various footage (octave) ranges. The drawbar buttons are used to turn the voices on and off. The drawbar LEDs 5-8 are lit up for an activated voice, and drawbar LEDs 1-4 are lit up for a deactivated voice. The table below shows the original register name.

Register Selector	Voice	Panel Name
1	Bass 16	BASS16
2	Strings 16	STR16
3	Flute 8	FLUTE8
4	Oboe 8	OBOE8
5	Trumpet 8	TRMP8
6	Strings 8	STR8
7	Flute 4	FLUTE4
8	Strings 4	STR4
9	A bright voice, an octave and a fifth above the fundamental	2 2/3

The illustration below shows the pitch interval between each voice when the key of C3 is played. Though some voices have the same pitch, they differ in tonal character.



Vibrato

The original instrument has two basic vibrato modes; “Light” and “Heavy”, with different rates for each mode. There are several types of vibrato and choruses available for the Farf model in the Stage 2, which are activated using the On button in the Vibrato section.

The V1, V2 and the V3 settings are the ones that are modeled after the original instrument’s. Note that the Farf vibrato is common for both Slots.

Swell Control

Swell is a characteristic feature that you control from an continuous pedal. Swell is not only a volume control - for the B3 it also changes the character of the sound in a special way. To use Swell control on the Nord Stage 2, simply plug in a standard expression pedal to the Organ Swell input on the rear panel (see page 61) and configure the pedal on the System Menu (see page 42).

An expression pedal connected to the Organ Swell input will control Swell for all organ models.

If you have only one expression pedal, it can be used both as a generic Control Pedal to control the Morph, and as a Swell Pedal. This is selected in the System Menu, see page 43.

Rotary Speaker

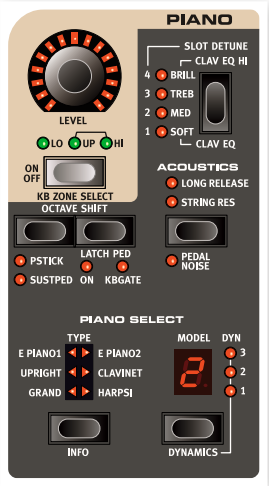
The Rotary Speaker controls are logically placed next to the Organ section. The Rotary Speaker and its settings are described in detail in the Effects Reference on page 39.

7 Piano

The Piano sounds

The Pianos in the Nord Stage 2 are organized into six types. Each type can contain several instrument models. You can freely add new piano instruments via USB using the Nord Sound Manager utility (read more about the Sound Manager on page 46).

Right out of the box, the Nord Stage 2 features a fine collection of carefully selected acoustic and electric pianos, and harpsichords. A lot of effort was made to ensure that the response and sound of the instruments matches every nuance of the real article. Each piano instrument has been multi-sampled in a vast amount of velocity levels. That's one reason why they all sound and feel so authentic.



Since all pianos are stored in the Flash memory, you can easily add and/or replace any stored piano instruments with new ones, supplied free from Nord. The size of the available memory for the piano samples is approximately 500 megabytes.

ℹ *When you download piano instruments with the Nord Sound Manager, these will always automatically be placed into the corresponding type.*

A program "knows" which piano instrument to use by referencing to the type and the model number. If a program references to a piano instrument that isn't currently loaded, the Type and Model LED will flash, with the missing Model number. If this happens, you can either navigate to another instrument Model in the selected (or any other) type and select to use this piano instead, or use the Nord Sound Manager utility to download an instrument into the empty Model location.

Piano Select

Type

Use the Piano Type selector to choose which piano sound you want to use.

Type	Description
Grand	Acoustic and electric grand pianos
Upright	Upright pianos
E Piano 1	Electric Pianos (tines)
E Piano 2	Electric Pianos (reeds)
Clavinet	Clavinets
Harpsi	Harpsichords

ℹ *The type of a piano has been set for you by a bloke named Hans at the Nord HQ. You cannot move a piano from one type to another.*

Info

Hold Shift and press Type/Info to display the name, a brief description and version number of the currently selected piano.

Model

Each Piano Type can contain several Piano Models, depending on the content of the memory in the Nord Stage 2. Press repeatedly on the Model button to select the desired sound. The number of the model will be indicated in the LED display, and the name of the model will be shown in the second row of the display.

⚠ *In the unlikely event that some data of a sound in the Flash memory is damaged, this will be indicated with a message in the LCD when the Nord Stage 2 is powered up. The Type and Model LEDs will flash for this particular sound if a program that uses it is selected. Press Shift/Exit to continue playing. To remedy the error, connect the unit to the Sound Manager to delete and then reload the piano.*

Clavinet

On the original Clavinet D6, you selected different pick-up combinations by pressing a number of rocker switches. This functionality is faithfully simulated in the Nord Stage 2, which means that you get all the original Clavinet D6 pickup selections by pressing the Model button when the Clavinet is the selected Type.

Pick-up Type Description

Clav Model A: Only the “neck” pick-up; a warmer, less bright sound.
Clav Model B: Only the “bridge” pick-up; a bright sound.
Clav Model C: Both pick-ups on and in phase; a very full sound.
Clav Model D: Both pick-ups 180 degrees out of phase; the fundamental is almost cancelled out and the sound becomes thin.

Dynamics

Hold Shift and press the Model button, to select the dynamics response. This allows you to select different response curves, which makes the Nord Stage 2 react stronger to the velocity you use on the keyboard.

When all LEDs are off, the default response curve is active. A Dyn setting of 1 makes it a bit easier to reach the maximum, a setting of 2, even easier and the third setting is the lightest response curve.

Acoustics

The Acoustics features allow you to add certain acoustic and mechanical components to the piano sounds.

String Resonance

String Resonance is the acoustic phenomenon that occurs when strings, or parts of strings, resonate at their fundamental or harmonic frequencies when other strings are played.

When this functionality is turned on, all notes you play will affect each other to reproduce the wonderful acoustics that occurs inside an acoustic grand or upright piano.

You will also hear all the strings resonate if you press the sustain pedal and play some notes.

ℹ *If a piano is selected that isn’t compatible with the String Resonance feature, this function will be disabled. This applies to e.g. the small (Sml) versions of the grand pianos and uprights, or the electric pianos.*

Long Release

Activating Long Release will add a slightly longer release to an acoustic or electric piano. This is equivalent to what happens when you adjust the damper tension in an acoustic or an electromechanical instrument. The added release is individual for every note and responds dynamically to the force with which you play.

ℹ *If a piano is selected that isn’t compatible with the Long Release feature, this function will be disabled. Release compatible pianos are of v5.3 or later.*

Pedal Noise

The Pedal Noise is the second Acoustics feature, available if you have connected the Nord Triple Pedal to the Stage 2 (not included, sold separately). By activating this, the mechanical noise that happens when you operate the sustain pedal on an acoustic or electric piano will be recreated. The Nord Triple Pedal is dynamic, you can control the level of the noise by the force you use when you operate the sustain pedal.

ℹ *If a piano is selected that isn’t compatible with the Pedal Noise feature, this function will be disabled.*

Nord Triple Pedal

The Stage 2 is compatible with an extra accessory, the Nord Triple Pedal which is comprised of three pedals in one unit (not included, sold separately). This pedal brings additional features to the functionality and sound of the Nord Stage 2.

ℹ *If a piano is selected that isn’t compatible with the Pedal Noise feature, this function will be disabled.*

Half pedaling

The sustain pedal on the Nord Triple Pedal can be used with half pedaling techniques. This is achieved by pressing the pedal half way down when certain pianos are used.

Sostenuto

The middle Nord Triple Pedal is the Sostenuto/Latch pedal. By using this, you can sustain selected notes, while other notes remain unaffected. Only the notes that are held down when the pedal is operated will sustain. Other notes that you play while keeping the pedal down will have no sustain at all. This requires that the Latch Ped feature is set to On - hold Shift and press the right Octave button until the Latch Ped On LED is lit.

Soft Pedal

The left pedal on the Nord Triple Pedal is the soft pedal, also known as the Una Corda. When you press this, all the notes you play will be slightly lower in volume and also have a slightly more subdued tone quality.

Slot Detune/Clav EQ

Clav EQ

An original Clavinet is equipped with 4 additional rocker switches, which controls the onboard EQ. These settings are available on the Nord Stage 2. Use the Slot Detune / Clav EQ button to set your preferred combination of the original Brilliant/Treble and Medium/Soft filter buttons.

ℹ *The Med/Soft setting are access by holding Shift and pressing the Slot Detune/Clav EQ button.*

Slot Detune

If you activate both Slots A and B in a layer configuration, these settings can be used to de-tune the Slots. The de-tuning will only affect the piano sounds.

8 Synth

Basics

The Synth section in Nord Stage 2 was designed to be a versatile yet easy to use stage synthesizer to supplement the other instrument sections. While being compact and easy to use, it is capable of all kinds of synthesized sounds, from piercing leads and fat basses to swirling pads and shimmering bells. You have hands-on control of all parameters, which is essential on a stage instrument.

It is subtractive synthesis design with faithful models of analog-style waveforms. It is also capable of FM (frequency modulation), Wavetable synthesis, and you can use samples as oscillator sound sources. The samples can come from the huge Nord Sample Library or you can create these yourself and bring any sound to the Nord Stage 2 synthesizer, with the Nord Sample Editor application.

In subtractive synthesis, you start with a bright waveform with lots of overtones, and then shape the color of the sound with a filter that subdues some of the harmonics. By modulating the filter cut-off frequency while the note is playing, dynamic timbres are created.

The Nord Stage 2 synthesizer also provides other means to generate dynamic and rich sounds, such as pulse width modulation, oscillator sync and dynamic control over FM amount. There are two envelopes and one LFO for real time sound shaping.

There is one Synth section for each Slot, and they share 18 voices, which are dynamically allocated between the slots. Using the Slots, you can play two different sounds simultaneously, layered or in splits. If you, for example, layer the Synth sections of both slots, you can create really complex and evolving sounds.

Oscillator

A lot of effort has been spent on creating a versatile and powerful oscillator section for the Stage 2 synthesizer. Based on a variable architecture, it provides four different oscillator techniques: Analog, FM (frequency modulation), digital wavetables and sample playback. For each technique there are a number of predefined algorithms with a main parameter mapped to the Shape knob.

For example, the analog category provides you with various waveforms, with or without hard sync. In each case, the Shape knob can controls one essential parameter, such as pulse width or sync oscillator frequency. This Shape parameter can be modulated by the LFO or the Modulation Envelope to create dynamic sounds. The Shape can also be controlled by the Morph Assign feature.

The sonic potential is further enhanced by the fact that the oscillator section actually contains a number of extra oscillators for each voice, which are brought in by the Unison parameter (see page 35). You can add several virtual oscillators per voice, without losing polyphony. This allows for some really thick sounds.

Shape

The Shape control is used to shape the sound in various ways (depending on waveform and algorithm, see below). Shape can be modulated by the Mod Envelope or the LFO, and Morph controlled, allowing the real-time use of the wheel, aftertouch or pedal to control the sound.

ℹ *For the Wavetable selection, the Shape knob has no functionality.*

Shape Mod

This knob governs the amount of modulation applied to the Shape parameter. The Shape parameter can be modulated by the LFO or the Mod Envelope.

Waveform selector button

The Waveform selector button is used to cycle through the different algorithms and categories. Turn the Waveform selector dial beneath the LED display to choose the specific waveform or algorithm that you wish to use.

Analog style waveforms

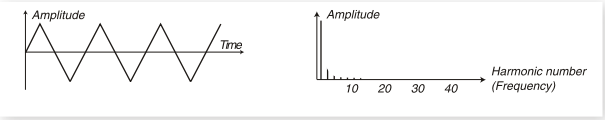
The Analog waveforms Triangle, Sawtooth and Pulse have each four variations that can be selected with the selector dial, summarized in the table.

Display	Waveform	Explanation
-----	Standard Triangle, Sawtooth or Pulse.	A plain waveform.
ShP	A shapeable waveform.	Tri: the Shape control emphasizes the available harmonics in the spectrum. Saw: the Shape control shifts the phase of two super imposed sawtooth waves up to a maximum 180 degrees shift, which creates a perceived one octave shift. Pulse: the Shape sets the width of the pulse.
dtn	A dual de-tuneable waveform.	Two oscillators with adjustable relative pitch. Shape knob range is +/- 12 semitones.
Snc	A synched waveform.	An oscillator with adjustable pitch offset, hard-synced by a second oscillator.

When you change waveform, the name of the currently selected waveform is shown briefly in the LCD.

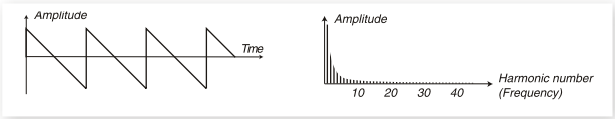
Triangle

The triangle waveform has only odd numbered and not very strong harmonics.



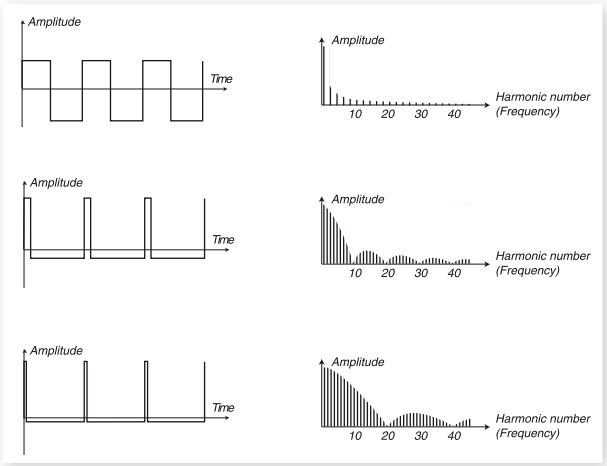
Sawtooth

The sawtooth wave contains all harmonics and is the richest of the available waveforms. It is suitable for all sorts of sounds.



Pulse

The pulse wave contains only odd numbered harmonics (3, 5, 7 etc.)at 50% pulse width (square wave). This waveform is special in that its harmonic content can be varied continuously, by adjusting the pulse width. The examples below have 50%, 10% and 5% pulse width.



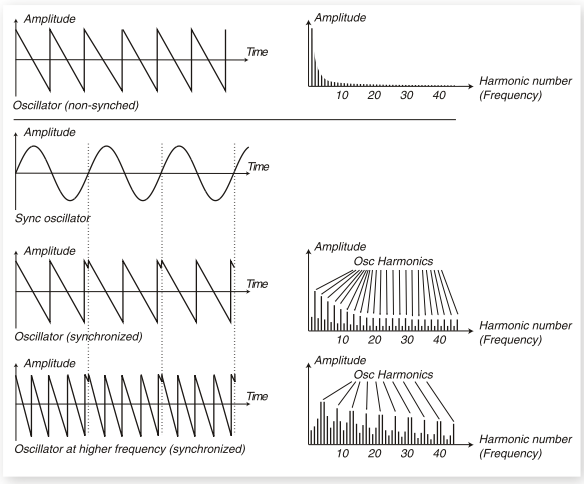
The Shape knob controls the pulse width of the pulse wave, from 50% (square wave) to 1% if the ShP wave is selected. You can modulate the Shape using Morph (see page 19), with the LFO or the Mod Envelope. This waveform is suitable for many type of sounds and has a more “hollow” character than the Sawtooth wave.

Noise

There are two samples available of white and pink noise in the Sample selection in the factory sound bank of the Nord Stage 2.

Oscillator Sync waveforms

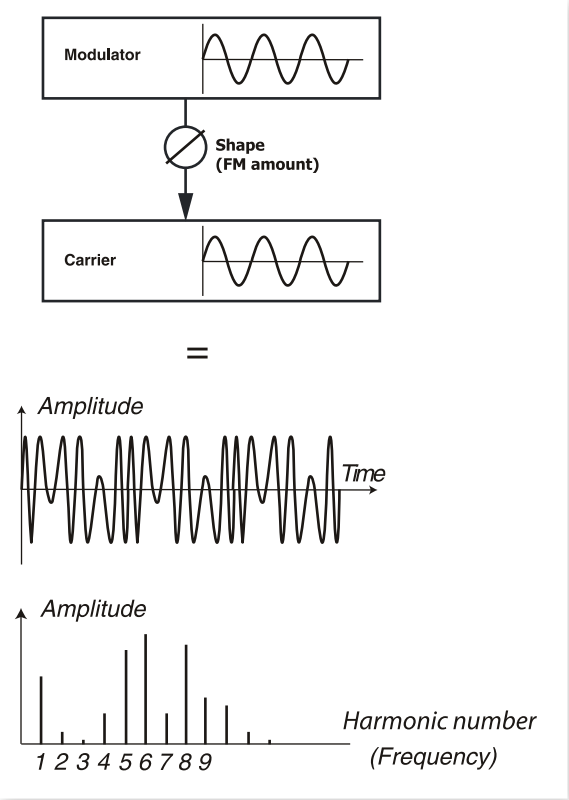
The Saw, Pulse and Triangle waveforms can be synchronized, if the Snc option is selected. Oscillator Synchronization means that you use the signal from one oscillator to restart another oscillator. Nord Stage 2 has a “hidden” sync oscillator for the waveforms with this option. Oscillator sync is very useful for generating lead lines with classic “hard sync” sounds. When sync is applied, the basic pitch of the oscillator is locked to that of the sync oscillator. When you vary the relative pitch of the synchronized oscillator with the Shape knob, this will be perceived as a change in timbre, with a frequency spectrum with deep resonance in the oscillator’s harmonics.



When using Oscillator Sync, it can be very useful to have the Shape amount(s) modulated from any of the Morph assign sources, or by the Modulation Envelope. This will generate a signal with continuously varied harmonic content.

Frequency Modulation

The basic principle behind frequency modulation (FM) synthesis is to have one oscillator (the modulator) modulating the frequency of another (the carrier). The carrier can in turn modulate the frequency of yet another oscillator, etc. There are several different algorithms in the FM category ranging from one up to three oscillators (operators) modulating each other in series, with or without feedback on the first operator in the chain.



The image above shows a 2 Operator FM-Synthesis setup, and the resulting waveform using a fairly high FM amount setting.

The resulting waveform is far more rich in harmonics than the original Sine waveform, and drastic changes in tonal character are provided by altering the amount of modulation.

There are several FM algorithms available; set-ups with various number of oscillators, feedback and frequency ratio settings between the oscillators.

- Use the Waveform-dial to select the FM-algorithm.
- The Shape parameter is used for setting the amount of modulation and/or feedback from none to maximum.

There are three main FM algorithms in the Nord Stage 2: one, two and three oscillator FM with feedback. The feedback is not active in all algorithms.

The Shape knob controls the FM and feedback amounts. When you turn the knob, all modulations are increased simultaneously. The number of harmonics, and their intensity, increase proportionally to the FM amount. As usual, the Shape parameter can be modulated by the Modulation Envelope or the LFO, and it can be Morph controlled by any combination of wheel, aftertouch and pedal.

Each algorithm comes with a number of pre-configured frequency ratios. Depending on what kind of sound you want, choose from the different combinations available and you have many interesting FM sounds at your disposal. When a new algorithm is selected, the Main display shows, for a short duration, the algorithm together with information on the frequency relations between the operators and whether feedback is used. The display shows the modulator(s) frequency relation to the carrier. If an operator uses feedback, it is indicated by a dot next to the digit. In the chart below all available algorithms together with the notation used in the display are listed:

FM Algorithms

LED	LCD	Description (FB = feedback)
Sin	1-OP (+FB)	Carrier only, with feedback
1 1	2-OP 1:1	Carrier + Modulator, same frequency
2 1	2-OP 2:1	Carrier + Modulator, frequency ratio 2:1
3 1	2-OP 3:1	Carrier + Modulator, frequency ratio 3:1
4 1	2-OP 4:1	Carrier + Modulator, frequency ratio 4:1
5 1	2-OP 5:1	Carrier + Modulator, frequency ratio 5:1
6 1	2-OP 6:1	Carrier + Modulator, frequency ratio 6:1
7 1	2-OP 7:1	Carrier + Modulator, frequency ratio 7:1
8 1	2-OP 8:1	Carrier + Modulator, frequency ratio 8:1
91	2-OP 9:1	Carrier + Modulator, frequency ratio 9:1
1.1	2-OP 1:1 (+FB)	Carrier + Mod + FB, same frequency
2.1	2-OP 2:1 (+FB)	Carrier + Mod + FB, frequency ratio 2:1
3.1	2-OP 3:1 (+FB)	Carrier + Mod + FB, frequency ratio 3:1
4.1	2-OP 4:1 (+FB)	Carrier + Mod + FB, frequency ratio 4:1
5.1	2-OP 5:1 (+FB)	Carrier + Modulator, frequency ratio 5:1
6.1	2-OP 6:1 (+FB)	Carrier + Mod + FB, frequency ratio 6:1
7.1	2-OP 7:1 (+FB)	Carrier + Mod + FB, frequency ratio 7:1
8.1	2-OP 8:1 (+FB)	Carrier + Mod + FB, frequency ratio 8:1
9.1	2-OP 9:1 (+FB)	Carrier + Mod + FB, frequency ratio 9:1
9.1	2-OP 9:1 (+FB)	Carrier + Mod + FB, frequency ratio 9:1
111	3-OP 1:1:1	Carrier + Mod + FB, same frequencies
211	3-OP 2:1:1	Carrier + Modulators, frequency ratios 2:1:1
311	3-OP 3:1:1	Carrier + Modulators, frequency ratios 3:1:1
511	3-OP 5:1:1	Carrier + Modulators, frequency ratios 5:1:1
911	3-OP 9:1:1	Carrier + Modulators, frequency ratios 9:1:1
221	3-OP 2:2:1	Carrier + Modulators, frequency ratios 2:2:1
421	3-OP 4:2:1	Carrier + Modulators, frequency ratios 4:2:1
821	3-OP 8:2:1	Carrier + Modulators, frequency ratios 8:2:1
1.11	3-OP 1:1:1(+FB)	Carrier + Mod + FB, same frequencies
1.21	3-OP 1:2:1(+FB)	Carrier + Mod + FB, freq. ratios 1:2:1
1.31	3-OP 1:3:1(+FB)	Carrier + Mod + FB, freq. ratios 1:3:1
1.51	3-OP 1:5:1(+FB)	Carrier + Mod + FB, freq. ratios 1:5:1
1.91	3-OP 1:9:1(+FB)	Carrier + Mod + FB, freq. ratios 1:9:1
1.F2	3-OP 1:1:2(+FB)	Carrier + Mod + FB, freq. ratios 1:1:2
2.F2	3-OP 2:1:1(+FB)	Carrier + Mod + FB, freq. ratios 2:1:2
3.F2	3-OP 3:1:2(+FB)	Carrier + Mod + FB, freq. ratios 3:1:2
5.F2	3-OP 5:1:2(+FB)	Carrier + Mod + FB, freq. ratios 5:1:2
9.F2	3-OP 9:1:2(+FB)	Carrier + Mod + FB, freq. ratios 9:1:2

Tip! The one-operator algorithm can be used to produce a perfect sine-wave, if the Shape knob is set to zero.

Wavetables

This category features 62 different digital waveforms with various tonal characteristics. The waveforms have been carefully designed and selected to provide rich and interesting timbres with a great variety, for those exquisite sounds that could not be produced with the other algorithms. Advanced wavetable synthesis techniques have been used to reproduce the waveforms perfectly over the whole keyboard range.

Some waveforms have a number of peaks high up in the spectrum, making them suitable for voice-like sounds (e.g. 3, 7, 8, 12), while others are combinations of several overlapping spectra (e.g. 5, 6, 18, 19). Yet others are extremely bright, with a fundamental that is softer than the many harmonics (e.g. 21, 23, 26, 27). Using these waveforms with the different filter settings, you should be able to create a wide variety of timbres.

ℹ *The Shape knob does not have any effect in the Digital Wavetable category.*

Samples

The Samp option allows you to use samples from the Nord Sample Library as an oscillator waveform and treat these with the other parts of the subtractive synthesizer architecture. This provides the synthesizer with a tremendous flexibility, but it doesn't stop there. You can even add your own samples to load into the Stage 2, with the Nord Sample Editor application.

The sample memory in the Stage 2 can hold up to 384 Megabytes of sample files in the Nord Sample Library format. Each and every one of these samples can be replaced if you wish. The sample memory is loaded with lots of sounds when the Nord Stage 2 left the Nord Factory, there are many more samples to be found on the included DVDROM or on the www.nordkeyboards.com website.

The samples are selected with the waveform dial.

Skip Sample Attack

When Samples are being used, the Shape control can be used as a switch to active the Skip Sample Attack feature. When this is turned on, the sample playback will begin at a fixed, alternative starting point which will bypass most, if not all of the original attack portion of the sample.

Load Sound

When you save a Stage 2 program the current synth settings are of course stored together with all other panel settings, but you can also select and store synth sounds separately from programs. In this way, you can build up a library of your favorite synth sounds to access whenever you need them.

Selecting synth sounds

There are 300 available memory loactions for synth sounds/patches. Press Shift and the waveform button, then turn the waveform selector dial to scroll through the available synth sounds. The name of the sound will appear in the LCD display and the sound will immediately become active in the Stage 2.

Filter Section

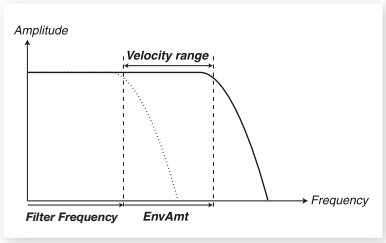
The Filter is one of the most important components to create the overall timbre of the sound. The harmonic content that the oscillators produce can be shaped with the filter and the filter itself can be modulated with various functions. The Nord Stage 2 features a selection of classical synthesizer filters.

The Filters share the same filter parameters: Filter Frequency controls the cutoff frequency and the Resonance controls the filter resonance.

Filter button

Press repeatedly on the Filter button to select the desired filter type. The available filter types are:

Low Pass - LP 24 & LP 12



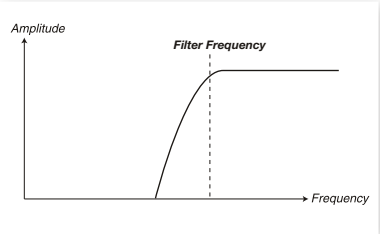
Frequencies above the Filter Frequency setting will be attenuated, frequencies below will not be affected.

The LP12 (12 dB/octave slope) leaves more harmonics than the 24dB variation. This type of filter has been used in e.g. early Oberheim synthesizers. A 12 dB filter is also known as a 2-pole filter.

The LP24 is the classic "synth filter", used in the Minimoog and Prophet-5 among others. It cuts out frequencies rather drastically, with a slope of 24 dB per octave. A 24 dB filter is also known as a 4-pole filter.

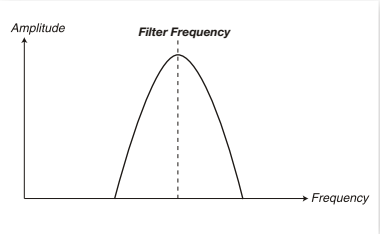
- Both the LP Filters can use the resonance function to emphasize frequencies around the filter frequency (cutoff frequency), making the sound thinner.

High Pass - HP



If HP is used, frequencies below the Filter Frequency setting will be attenuated, frequencies above the cutoff will not be affected.

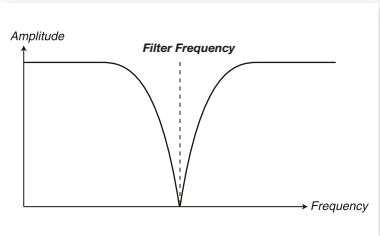
Band Pass - BP



A bandpass filter allows frequencies close the Filter Frequency setting to pass, while frequencies above and below the cutoff will be attenuated.

- The Filter Resonance sets the width of the frequency range that will pass through the band pass filter.

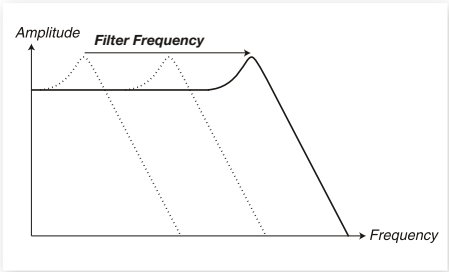
Notch



A Notch filter is the opposite of the Band Pass filter, it passes most of the frequencies unaltered, but attenuates those in a specific range.

- The Filter Resonance sets the width of the frequency range that will be attenuated with the Notch filter.

Filter Frequency



The Filter Frequency is used for setting the cutoff frequency point - where in the frequency range the filter begins to process frequencies. This parameter can be Morph controlled.

The Image above illustrates three different Filter Frequency settings using a low pass filter. The area to the left, up to the downward slope indicates the frequencies that passes through the filter. The area to the right of the slope are those frequencies that are reduced. Move the slope to the left and the sound gets duller. The “humps” at the top indicates a resonance setting. Ok, enough science.

KB Track

The reason for having a Keyboard Track switch is related to basic acoustics. If you raise the pitch of a waveform, the harmonics naturally raise in frequency. If the cutoff frequency is constant, the sound will be perceived as getting “muddier” the higher up the keyboard you play. To avoid this effect, use KB Track.

With KB Track turned off, the filter frequency setting is constant regardless of where on the keyboard you play. When Keyboard Track is activated, the filter frequency setting will be higher for higher notes.

Resonance

The Resonance parameter is used to further adjust the characteristics of the filter. Increasing the Resonance will emphasize frequencies around the cutoff frequency, making the sound thinner. Further raising the Resonance will make the sound resonant to a point where the filter starts to self-oscillate and produce a ringing pitch. Exactly where in the frequency spectrum this “ringing” occurs, depends on the Frequency value.

Freq Mod 1 - LFO

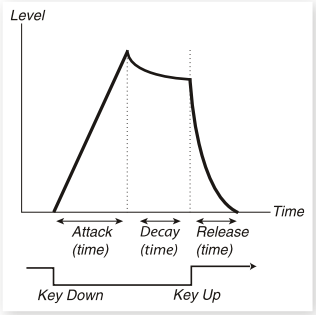
The filter frequency can be controlled by the low frequency oscillator, the LFO. The Freq Mod 1 knob sets the amount of modulation.

Freq Mod 2

This knob governs the amount of the second modulation source to the Filter Frequency. Set the knob to a position after 12 o’clock, the Mod Envelope will modulate the Filter Frequency. Set the knob to a position before 12 o’clock to control the Filter Frequency by the velocity of the keys you play.

The Envelopes

The envelopes are used to “shape the sound” over the period of time, from when you first play a key, to after it has been released.



Mod Envelope

The Modulation Envelope is a three-stage envelope used to modulate the tone color over the duration of a note, e.g. create a bright attack by modulating the filter in the start of the note. The Mod Envelope has three stages:

Attack

Attack sets the time it should take for the envelope to reach maximum level after you have pressed a key. Turn the Attack knob clockwise to increase Attack time.

Decay

When the attack phase is over, and the key is still held down, the envelope drops back to zero level. Use the Decay knob to set the time this should take. If the Decay time is set to the maximum, the envelope will remain on a sustained level until the key is released.

Release

When the key is released, the envelope enters the release stage. The release time is set with the release knob.

Amp Envelope

The final stage of a synth signal chain usually consists of an amplifier to control the volume. By modulating the amplifier with an envelope, the sound is given its basic "shape" over time. In fact, the "volume shape" is one of the most important factors to how we identify the sound. By setting up a proper volume envelope you can make a sound "soft", "hard", "plucked" "static" etc.

The Amp Envelope has the same three stages as the Mod Envelope:

Attack

The Attack knob is used to adjust how long it should take for the sound to reach from zero to full amplitude after a key has been pressed. With long Attack settings the sound will gradually "fade in".

Decay

When the attack phase is over, the envelope drops back to zero level. Use the Decay knob to set the time this should take. If the Decay time is set to the maximum, the envelope will remain on a sustained level until the key is released.

Release

When the key is released, the envelope enters the release stage. The release time is set with the release knob.

The LFO

The LFO is a Low Frequency Oscillator, producing waveforms with the following characteristics:

- The LFO is capable of producing waveforms with a very low frequency.
- LFOs are not used for generating audible frequencies. Instead the output from the LFO is used for modulating, that is controlling, other functions, like for example the Shape parameter on the Stage 2 oscillator or the filter frequency.

The rate of the LFO is set with the Rate knob. The range is from 0.03 to 523 Hz.

The Waveform Selector button determines the waveform that is generated by the LFO.

Waveform	Description
⊓	**Square (no LED lit)** Use for abrupt modulation changes, suitable for trills, distinct tremolos, etc.
◺	**Sawtooth** Use for ramp type modulations.
∧	**Triangle** Suitable for natural vibrato effects and also used for classic pulse width modulation.
S/H	**Sample & Hold** Creates an smooth random modulation.

MST CLK

Press Shift and the LFO waveform button to sync the rate of the LFO to the Stage 2's Master clock.

When the LFO is synchronized to the Master Clock, the Rate knob will be used to set the arpeggio's subdivison of the tempo of the Master Clock. The Subdivisions are described in meter: ½ equals half notes at the clock tempo, ¼ equals quarter notes, 1/8 are eight notes etc.. Read more about this feature on page 18.

Velocity

Amp Env Velocity

When the Amp Env Velocity LED is lit, the level of the synth sound will be controlled by the velocity you use when you play on the keyboard.

Mod Env Velocity

When the Mod Env Velocity LED is lit, you will control the amplitude of the Modulation Envelope, by the velocity you use when you play on the keyboard. Play harder and the Mod Env will affect the parameter(s) more.

Voices section

In this section, you set various voice modes for the synthesizer. You can choose between monophonic and polyphonic playing, and control glide between notes. You will also find the powerful Unison mode.

Voice Mode Mono

In Mono mode you can only play one note at a time, just like on a traditional monophonic synthesizer. If you play one key and then a second key without releasing the first key, the last note will sound. If you now release the last key, the first one will be re-triggered and start sounding again. If you play a new key before releasing the previously played key (legato), the new note will replace the previous one at the current Envelope stage of the previously pressed key. The new note will not re-trigger the envelopes.

ℹ *If you use samples and mono, the envelopes will be re-triggered even if you play legato .*

To activate Mono mode, press the selector button until the Mono LED lights up.

Voice Mode Legato

In Legato mode you can only play one note at a time, just as if the Mono mode is active.

If Legato is tuned on, glide is active only when you play legato. You have to press a new key before you release the previous key to get the Glide.

If you release the last played key before playing a new key (non-legato), the new note's Envelopes will be re-triggered.

Glide

When the Glide knob is set to anything other than zero, glide is activated, the Glide function makes the pitch "glide" from one note to the next when playing (this is sometimes called portamento). It operates in legato and mono mode only. The glide characteristics can be described as "constant rate", which means that the greater the "distance" between two subsequent notes, the longer the glide time. Turn the Glide knob clockwise to increase the glide rate.

Unison

The Stage 2 synthesizer oscillator has a couple of "hidden" oscillators. The number of extra oscillators varies with the algorithms, but is usually between two and four. When you activate Unison, these slightly de-tuned voices are gradually added to the basic sound for those fat, classic synthesizer sounds. Note that using Unison does not reduce the polyphony!

You adjust the number of extra oscillators and the de-tune amount among the voices by pressing the unison selector:

A setting of 1, 2 or 3 equals a classic dual oscillator de-tuning effect with an increasing amount of de-tune between the oscillators.

A setting of Multi 1, 2 and 3 introduces a thicker multi-voice de-tuning, which can create very powerful sounds.

Vibrato

Vibrato modulates the pitch of the oscillator to produce natural vibrato effects.

There are three basic methods you can use to control Synth Vibrato which is set using the Selector button in the Vibrato section:

If aftertouch (A.T) is selected you can control the vibrato by pressing down held notes on the keyboard.

If DLY1, 2 or 3 is selected, the vibrato will influence the synth pitch with an increasing delay in doing so, when a note is played. The amount of the vibrato if it is delayed, is set in the Sound Menu. Read more about this on page 42.

When WHL is selected, you control the vibrato amount with the Mod Wheel.

Storing Synth Sounds

To store a Synth Sound, press Shift and the Store Synth button in the Vibrato section. The waveform display starts blinking. You can now use the waveform selector dial to navigate to a memory location where you would like to store your sound.

To name a Synth Sound you can use the Page buttons to move the cursor and the Value Dial to select character just as for Programs, read more about this on page 16.

To confirm your intentions to store the sound, press the Store Synth button again.

ℹ *Press Shift to cancel an ongoing Store operation.*

Arpeggiator

If you play a chord and hold the keys, the notes in the chord will be played back repeatedly by the arpeggiator, one after the other. The parameters govern direction, range and speed. The arpeggiator can be used with Up, Down, Up/Down or Random directions in several octave ranges. The tempo of the arpeggiated notes is set by the Rate control or by synchronizing the arpeggio to the Master Clock of the Nord Stage 2.

Press the Hold button if you want the arpeggio to continue even if you lift your fingers from the keys.

The arpeggio is activated with the On button. The Arpeggio selector sets the direction. If no LED is lit, the arpeggio will play in the Up fashion. The other directions are Down (DN), Up and Down (U/D) and Random (RND).

Press Shift and the arpeggio selector to set the octave range. When no LED is lit, the range is one octave. Press Shift and the selector to reach the settings for 2, 3, and 4 octaves.

The Rate knob sets the rate which will be displayed as quarter note beats per minute (BPM) in the LCD. If the rate is set really high, the display will indicate this as eight- or sixteen notes of a halved or quartered tempo. An example of this would be 84:8 which is equivalent to 168 BPM.

Press Shift and the Arpeggio On button to sync the arpeggio with Nord Stage 2 Master Clock. When the Arpeggio is synchronized to the Master Clock, the Rate knob will be used to set the arpeggio's subdivision of the tempo of the Master Clock. The Subdivisions are described in meter: ½ equals half notes at the clock tempo, ¼ equals quarter notes, 1/8 are eight notes etc.. A "T" indicates a meter with triplet feel.

Read more on Master Clock and how the set the tempo on page 18.

Sound Init

To start with a "clean slate" when programming sounds you can use the Sound Init function. This will initialize the synthesizer to a basic default setting. This is done by holding Shift and pressing the Arpeggio Hold button.

9 Effects

Overview

The effects available in the Nord Stage 2 can be divided into three main categories:

Slot Effects - these can affect one instrument (per Slot) at a time. The Slot effects are located in the main Effects section and in the AmpSim/EQ section. All Slot effects have separate engines and settings for Slot A and B, you have two sets of Slot effects available for each Program. These effects can be synchronized to the Master Clock which can produce some very creative sounds.

Global Effects - these affect all instruments routed to the main outputs CH1 & CH2. The global effects are the Compressor and Reverb on the far right of the front panel.

The Rotary Speaker works in a slightly differently way compared to the Slot effects. Read more about the Rotary on page 39.

About mono/stereo and effect routing

Some of the effects are mono in/mono out, some are stereo in/stereo out and others are mono in/stereo out. The channel configuration is stated in the related text for each individual effect. Whenever this applies it will also be explained in the corresponding effect description.

The Slot effects

Activating Slot effects

To enable a Slot effect, press the ON/OFF button at the bottom of the corresponding effect section. The LEDs above the button will indicate which instrument the effect is assigned to. Hold down Shift and press the Source button to change the instrument assignment.

You can also step through the instrument assignments by double-clicking the Source button. This is convenient when you only have one hand free and cannot reach the Shift button.

Making settings for Slot effects

Use the Rate/Tempo and Amount knobs in the main “Effects” section (Effect 1/Effect 2/Delay) to make settings for the individual effects. The parameters these two knobs controls depend on the selected effect - these are described for the corresponding effects below. The Rate/Tempo and Amount knobs can also be Morph controlled - see page 19.

The Focus button

If you have more than one effect activated in the Effects section (e.g. Effect 1 and Effect 2), the Focus button is used to select which effect's settings (Rate/Tempo and Amount) you currently "see" and can edit. Pressing the Focus button will alternate focus between the currently activated effects. The LED beside the corresponding Effect 1/Effect 2/ Delay section is lit to indicate the effect in focus.

Mst Clk

Hold Shift and press the Focus button when an appropriate effect is selected, to synchronize the effect to the Master Clock. This changes the behavior of the Rate/Tempo knob, from the normal setting of a rate to setting a subdivision of the Master Clock's tempo instead.

The subdivisions are not identical for the different synchronize-able features. The delay have some meters that can create a nice "swing" or triplet feel, like for example 1/4S (swing), 1/4T (triplet feel), 1/4D (dotted notes). The LFO and Effects 1 and 2 have a few "slow" subdivisions (4/1, 2/1 etc.) to make sweeps that stretches across entire bars if needed.

Effect type selection when an Effect is off

When an effect is off, you can still check which effect type is selected by pressing the corresponding Effect Selector button once. The Selector LED will briefly show the current effect type. If you press the Selector button repeatedly, you change the Effect type without turning on the effect. In this way, you can make sure that the right effect type is selected before it is turned on.

This feature is available for Effects 1 & 2, the Amp simulation model and the Reverb.

You can also adjust the effect settings even if the actual effect is turned off. The values of the parameters will be shown in the display.

Effect 1

The Effect 1 section offers six different types of modulation effects. Use the Selector button to switch between the available modulation effects. The following effects are available:

A-Pan (Auto Pan)

The A-Pan is an automatic panning modulation that smoothly pans the signal between the Left and Right outputs in the stereo panorama.

The rate and the amount of panning are controlled with the Rate/Tempo and Amount knobs. The Pan effect is stereo in/stereo out.

Static Pan control of an Instrument

Manual control of over the panning of an instrument can be achieved with the A-Pan effect:

1. Enable Effect 1 for the instrument you want to pan, and select the A-Pan effect type.
2. Set the Rate/Tempo knob to zero. Place the instrument anywhere in the stereo panorama with the Amount knob, just like a pan control on a mixer.

Trem (Tremolo)

Tremolo is a volume modulation that continuously varies the volume of the output signal. Tremolo is commonly used, especially for electric pianos. The Tremolo effect is stereo in/stereo out.

The Rate/Tempo and Amount knobs to controls the Tremolo rate and depth. Note that the output volume is at maximum level at zero Amount setting.

RM (Ring modulation)

Ring Modulation is a type of modulation where two signals are multiplied with each other. The result is an in-harmonic "bell like" sound. In the Nord Stage 2 the instrument signal is multiplied with an additional sine wave.

You set the pitch of the sine wave with the Rate/Tempo knob and the amount of ring modulation with the Amount knob. This effect is mono in/mono out.

Wa-Wa

The Wah-Wah modulation is often used for instruments to get a characteristic sound, also known as the "Quack". Wah-Wah can be extremely useful on electric piano. Try out the Clavinet sound with Wah-Wah modulation and you'll understand. The Wah-Wah modulation is a lowpass type of filter that can be swept across the frequency range. During the sweep, the filter's characteristics also changes. The Wah effect is mono in/mono out.

You control the "pedal position" of the Wah with the Rate/Tempo knob and the wet/dry mix with the Amount knob.

An expression pedal connected to the Control Pedal Input can be used to control the filter sweep by Morphing the Rate. This allows you to control the Wah-Wah effect with the pedal, using the Morph function - see page 19.

A-Wha 1 & 2 (Auto-Wah)

Auto-Wah 1-2 are variations of the Wah-Wah effect described above. The A-Wha uses the signal's amplitude (envelope follower) to control the filter sweep range, making the effect "velocity sensitive". The range of the Auto-Wah 1 is controlled with the Rate/Tempo knob and the wet/dry mix with the Amount knob.

A-Wha 2 works in the same way, but produces a different character.

The A-Wah effects are mono in/mono out.

Effect 2

The Effect 2 section offers six types of vintage style effects to add that special flavour to your sounds.

Phaser 1 & 2

The digital models of the phasers in the Stage 2 are inspired by models like the Bi Phase, a classic unit that is heard all over some of the 70s most epic music, and the fierce Small Stone unit.

The phaser effect produces a characteristic “sweep” effect commonly used with electric piano sounds. The rate of the phase shift is controlled with the Rate/Tempo knob and the phase shift amount with the Amount knob. This effect is mono in/mono out.

Flanger

The flanger produces a dramatic comb filter effect. The flanging rate is set with the Rate/Tempo knob and the amount with the Amount knob. The Flanger effect is mono in/mono out.

Vibe

The Vibe effect is an effect that draws its inspiration from a desirable foot pedal. The effect is created through a digital model of a staggered series of phasing filters, unlike the usually aligned filters of a normal phasing effect. The Vibe effect is mono in/mono out.

Chorus 1 & 2

The Chorus effect simulates having several slightly de-tuned copies of the audio signal mixed with each other. The de-tuning of the copies is set with the Rate/Tempo knob and the amount with the Amount knob. This effect is stereo in/stereo out.

Delay

The Delay effect produces echo/repeat effects. The Delay time is set with the Rate/Tempo knob (20 - 750 ms). The delay time and corresponding tempo and rhythmic subdivision will be shown briefly in the display when the Rate/Tempo knob is turned. The Amount knob adjusts the balance between the dry signal and the delay repeats.

The Feedback knob controls the number of delay repeats. The Delay is stereo in/stereo out.

There are two different delay modes, the “analog” mode and the “normal/digital” mode. The analog mode will change the pitch on any sounding repeats if you adjust the Rate/Tempo knob, something that the normal mode does not do. This is a user selectable option, and is set in the Sound menu - see page 43.

Ping Pong

Hold Shift and press the tap tempo button to activate the Ping Pong mode. This will make the delay repeats alternate between the left and right channels. If short delay times are used, these repeats will be “asymmetrical” and produce delays that are more like early reflections in reverb units.

Tap Tempo

You can use Tap Tempo to set a delay time matching the tempo of a song. Simply tap the Tap Tempo button in the tempo you wish the delay to sync to a number of times, and the delay time will be adjusted automatically.

As long as the Tap Tempo LED is lit, the tempo is calculated - wait until it goes dark to tap in another tempo. Tapping will never result in a pitch change of current repeats.

Amp Sim/Equalizer

This effect combines a three-band equalizer with a sophisticated amplifier and speaker cabinet simulation. No real amplifier or speaker is perfect, or behaves the same. They all differ in their frequency response, and respond differently to e.g. transients, high gain and load. This characteristic response and sound character of various amplifiers and speaker cabinets is often a desired effect that gives an organic quality to a too clean and perfect sound.

The special behavior of an amplifier/speaker combination when pushed to its limit, “overdrive”, has been exploited by musicians for decades. The Ampsim models faithfully reproduces the overdrive response of different amplifier/cabinet combinations, giving you that authentic sound.

When no Amp Model is selected, the Ampsim/EQ section provides a neutral EQ and overdrive.

The Amp sim’s and distortion when the drive is tuned up, are mono in/mono out. If you just use the EQ, you will get a stereo-stereo configuration.

Amp model

The three different amplifier/speaker simulations are selected with the Selector button in the Amp Model section:

Amp Model	Description
JC	A simulation of a Roland Jazz Chorus speaker cabinet, powered by a tube amp.
Small	A simulation of a Wurlitzer 200A internal speaker, powered by a tube amp.
Twin	A simulation of a Fender Twin tube amplifier and speaker cabinet.

Drive

The Drive knob controls the amount of overdrive for the Amp sim section. If the Drive LED is on, it indicates that overdrive is active.

EQ section

This is a 3-band equalizer which features bass, sweep-able midrange and treble controls. The bass frequency is 100 Hz, the treble frequency is 4 kHz and the mid range frequency can be set between 200 Hz to 8 kHz. The boost/cut range is +/- 15 dB.

Global Effects

If activated, the Compressor and Reverb effects will process all signals routed to the CH 1/CH 2 and headphone outputs, but do not affect any signals routed to the CH 3/CH 4 outputs. Both these effects are stereo in/stereo out.

Compressor

The Compressor will even out the dynamics of what you play, making low level sounds louder and high level sounds more quiet. This produces a tight, punchy sound and makes the overall level easier to control in a live mix situation. The Compressor is activated with the On button. The Amount knob controls the amount of compression applied.

Reverb

The Reverb section simulates the natural sound reflections in various acoustic environments. There are six reverb types with various lengths and densities, indicated by the LEDs in the selector.

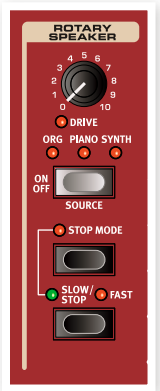
The Hall reverbs have the response and character of a spacious hall, with a fairly long decay. The Stage reverbs have a medium decay time and the Rooms are more of an ambience with a rather short decay time.

The “reverb 1” is a more mellow version, while the “2” is brighter.

The Dry/Wet knob sets the balance between the unprocessed and the processed signal.

Rotary Speaker

The Rotary Speaker in Nord Stage 2 accurately reproduces the sound of the rotating horn and bass rotor, as well as the characteristics of the built-in amplifier of the original rotary units. The Rotary effect is mono in/Stereo out.



- The Rotary effect is activated or de-activated for a selected instrument in the same way as the Slot Effects, by pressing the Source button.
- You switch between fast and slow rotor speeds by pressing the Slow/Stop button.
- To stop the rotors, press the Stop Mode button to activate the Stop Mode and then the Slow/Stop button (this does not deactivate the Rotary Speaker - it only stops the rotors). When you press the Slow/Stop button again the rotors will accelerate to the Fast speed setting. This functionality mimics the behavior of an early, one speed rotary speaker.
- The rotor acceleration rate, the time it takes to go from slow to fast and vice versa, can be adjusted on the Sound menu, read more on page 43.
- The Rotary speed can be continuously controlled with a Morph source. This makes it possible to set the rotary at speeds other than just fast, slow and stopped.

The Drive knob controls the amount of overdrive. This simulates the pre-amplifier overdrive of the original rotary speakers.

A sustain pedal or a foot switch that is connected to the Rotor Speed pedal input can control the rotor speed, read more on page 61.

About the Rotary effect’s signal routing

The Rotary effect is placed after the panel effects in Nord Stage 2’s signal path. It also sums audio signals if both Slot A and B are active. This means that if you are using a split organ setup for example, both “manuals” will be affected by the Rotary effect (just like on the real thing).

ℹ *The Rotary Drive parameter is dependent on the processed instrument’s Level setting. If the instrument being processed by the Rotary is set to a very low level, the amount of available drive will be significantly reduced. Again, this is very much like it works with the “real articles” - when you increase the organ level, e.g. by using a swell pedal, the amount of distortion from the Rotary effect increases.*

Rotary parameter

There is a parameter in the Sound Menu that sets the acceleration and deceleration rate of the rotary speakers. Read more about on this on page 43.

10 Extern Section

Extern section

Control of external MIDI instruments is an integrated feature of the Nord Stage 2. You have all the essential external MIDI control functions as accessible and easy to use as the functions and parameters for the built-in instruments. That's what you get in the Extern section.

The Extern behaves like the internal instruments in most cases. It is enabled and assigned to a keyboard zone in the same way. It has a multi-purpose Parameter knob, which is used to send MIDI Volume, Program Change and Continuous Controller messages. Press the Parameter Select button to select the Parameter to transmit.

Detailed settings for MIDI Channel, program Change and Continuous Controllers, among other things, are accessed through the Extern Menu (read more about this on page 45). These settings can be part of the Programs, this makes it possible for the Stage 2 to send MIDI messages to your external units when you change Programs.

Setting up

1. Connect a MIDI cable from Nord Stage 2's MIDI Out to the MIDI In on the external device.
2. Hold Shift and press the Extern button to access the Extern menu.
3. Use The Page buttons to access the "Extern MIDI A/B Channel" page.
4. Use the Value Dial to select the transmitting MIDI channel (1-16) you would like to use. Use the Slot A and B buttons to access the channel setting for each slot. Press the Exit (Shift) button to exit the menu.
5. Set the external instrument to receive on the same MIDI channel.

Using the Extern section

Activating

Activate the Extern section in order to have Extern transmitting MIDI from Nord Stage 2. This is done by pressing the On button under the Parameter rotary encoder, in the same fashion as you activate the Stage 2 instruments.

Keyboard Zones

There are two Extern sections, one for each Slot A and B. Use the keyboard zones to create splits and layers just like for the internal instruments. If the Extern section is assigned to only play in the LO Zone, the external instrument will only respond to notes played in this zone.

In addition to the usual keyboard zones, there is an extra option that doesn't assign the Extern section to the internal keyboard at all. However, all other External features are still active, such as the Pitch Stick and the Parameter knob. This is useful when you want to control external equipment with no need for MIDI keyboard messages. Hold Shift and press the Extern On button. Note how the Zone LEDs are off but the parameter LEDs lit up.

See the section about splits on page 20 for information on how to set up and use keyboard zones.

Octave Shift

The Octave Shift buttons in the Extern section work exactly as for the internal instruments. The shift range depends on the total note range of the external instrument, and the range of the keyboard zone(s) that the external instrument is currently assigned to.

Activating Pitch Stick/Sustain Pedal messages

Hold Shift and press one of the Pstick or Sustped buttons to set up whether Nord Stage 2 should send pitch bend and/or sustain pedal messages via the Extern MIDI channel. The LEDs indicates if these functions are activated.

Extern Parameters

The Parameter section comprises the three buttons in the Parameter Select section and the Parameter rotary encoder at the top. Simply put, you select a parameter and vary the value of the selected parameter with the Parameter encoder.

☼ *The Parameter encoder can also be Morph controlled - read more on page 18. This allows you to change MIDI parameters during a performance.*

The following parameters can be set using the Parameter Select buttons:

Volume

If Volume is activated, the Parameter encoder will send MIDI Volume CC7 messages (0-127). This allows you to control the level of the external device. The external instrument may have to be set to receive MIDI CC messages for this to work as expected.

Prog Change

The Prog Change option allows the Parameter encoder to send Program Change messages (0-127), allowing you to select programs in the external instrument. This function behaves slightly differently than the other parameters. The Parameter encoder will in this mode send a program Change message for each individual rotary encoder LED. To access all 127 messages, simply continue to turn the encoder multiple times - it will continue to send messages across the whole range. The external instrument may have to be set to receive MIDI program Change messages for this to work as expected.

⚠ *The Stage 2 itself can transmit MIDI Program Change when you select a Bank, Page and Program. If this occurs on the same MIDI channel, it can lead to unwanted results on the external units. Make sure that the Slot A and Slot B MIDI channels are not the same as the Extern MIDI channel. The specific setting for the "internal" Stage 2 Program Change in the MIDI Menu can also be turned off.*

If the external instrument organizes programs in Banks, there is an option to send Bank Change messages on the Extern Menu page, - see page 45.

MIDI CC

This feature makes it possible to transmit MIDI Control Change messages to control a parameter of your choice on the external instrument. First you have to decide which Controller number the Parameter encoder should transmit, this is done in the Extern Menu:

1. Hold Shift and press the Extern button to access the Extern menu.
2. Use the Page buttons to select the "Extern MIDI CC Number" menu page.
3. Use the Value Dial to select a MIDI CC Number (0-119). You may want to check the manual for the external instrument to see which parameters are assigned to which CC numbers.
4. Press the Exit (Shift) button to exit.

Activate the MIDI CC button in the Parameter Select section, to control the selected external parameter using the Extern's Parameter encoder. The external instrument may have to be set to receive MIDI CC messages for this to work as expected.

Send On Load

If the Send On Load feature is activated in the Extern Menu, Program Change, Volume and MIDI CC messages are transmitted via MIDI when you load a program in Nord Stage 2. If you do not want these actions to occur, make sure "Send On Load" is set to "Off" on the Extern menu.

Extern Section and MIDI re-routing

When an external device transmits MIDI notes to the Stage 2 and the Extern section is activated on the Stage 2, those incoming MIDI notes can be re-routed to the MIDI Output of the Stage 2, on the MIDI channel that is set for the Extern section.

This allows you to control one external device from another external device. The incoming notes must be on the same MIDI channels as set in the Stage 2 for the Dual Kb, the Slot A or Slot B MIDI channel setting or the Global MIDI channel setting.

☼ *The Extern menu setting Soft Thru must in these cases be set to "On".*

11 Menus

Any settings that you change in the System, Sound, MIDI or Extern menus will take immediate effect on a global basis, and the settings will be stored until you change them the next time. Enter the menus by holding Shift and pressing the System, Sound, MIDI or Extern button (Program buttons 1 to 4). Select a function with the Page ◂ and ▸ buttons and change the setting with the Value Dial. Exit the menus by pressing the Shift/Exit button.

ℹ *There is one menu setting that doesn't get automatically stored when you power off the Stage 2, the MIDI Local On/Off setting. This always reverts to Local On every time the Nord Stage 2 is powered up.*

System Menu

Hold Shift and press Program 1/System to access the System menu settings. Use the Page ◂ and ▸ buttons to navigate between the various menu items on the System menu. The Value Dial is used to change settings, the Slot buttons to switch between A and B where applicable. When you are done, press Exit (Shift) to exit the menu.

Global Transpose

This setting allows you to transpose the entire Nord Stage 2 in semitone steps. Any setting you make here will be added to the panel transpose that may be saved with the programs.

Range: +/- 6 semitones (default value is "0")

Fine Tune

Fine Tune can be used to fine tune the pitch of the Stage 2 in finer increments.

Range: +/- 50 Cents (+/- half a semitone). Default value is "0"

Output Routing

The output routing of the instruments in the Nord Stage 2 can be determined in two different ways, globally, or independently for each program. In Program mode, the output selections will be stored in individual programs. When "Global" is selected, the output routings will be the same for all programs, overriding the routings stored with each program.

Range: Global (Default), Program

Organ Audio A/B Output

This allows you to set which channel output pairs (or mono output) to use for the Organ section. If the Output Routing (see above) is set to "Program", these settings will be saved with the program.

Range: "1 & 2" (Default), "3 & 4", "3" ,"4"

Piano Audio A/B Output

This allows you to set which channel output pairs (or mono output) to use for the Piano A and B sections. Use the Slot A & B buttons to access the settings for each Slot. If the Output Routing (see above) is set to "Program", these settings will be saved with the program.

Range: "1 & 2" (Default), "3 & 4", "3" ,"4"

Synth Audio A/B Output

This allows you to set which channel output pairs (or mono output) to use for the Synth A and B section. Use the Slot A & B buttons to access the settings for each Slot. If the Output Routing (see above) is set to "Program", these settings will be saved with the program.

Range: "1 & 2" (Default), "3 & 4", "3" ,"4"

Organ Keyboard Trig Point

This allows you to change how the Nord Stage 2 keyboard triggers Organ sounds. When "High" is selected, you will trigger organ sounds before the key is fully depressed. This mode closely mimics the way a original tonewheel organ works.

Range: High, Low (Default)

Sustain Pedal Type

This allows you to select the type of a connected sustain pedal, in case the functionality of the pedal is reversed (when the pedal is up, sustain is on and vice versa). The Auto setting can automatically determine the pedal type.

Range: Open, Closed, Triple (Nord Triple Pedal), Auto (Default)

Sustain Pedal Func

If you have only one pedal connected at the Sustain Pedal input and you want to use it as both a Sustain Pedal and a Rotor Speed Pedal, this setting provides you with three alternatives - Sustain only, Sustain and Rotor Hold (fast rotor speed only when the pedal is down) and Sustain and Rotor Toogle (toggles between fast and slow each time the pedal is used).

Range: Sustain (Default), Sus+RotrHld, Sus+RotrTgl

Rotor/Latch Pedal Type

This allows you to change the type/polarity of a switch pedal connected to control Rotor/Latch input, in case the functionality of a connected pedal is reversed. The Auto setting can automatically determine the pedal type.

Range: Open, Closed, Auto (Default)

Rotor/Latch Pedal Func

This allows you to change the functionality of a switch pedal connected to the Rotor/Latch input on the Stage 2. Such a pedal can be used to control the rotor speed or act as a latch/sostenuto pedal. Rotor Hold means that the Rotor Speed is fast for as long as the pedal is down and reverts back to slow when the pedal is released. Rotor Toggle means that the fast/slow rotor speed is switched with each pedal depression, like an on/off switch pedal.

Range: Latch, Rotor Hold (default), Rotor Toggle

Ctrl Pedal Type

The Stage 2 accepts many of the most commonly available control pedals the Ctrl Pedal input. Select a setting here that matches the pedal that you use.

If you operate a connected pedal while this option is active, a percentage will be displayed from 0 to 100 to indicate the range of the connected pedal. This can be used to find a suitable setting for a pedal this isn't directly supported.

Range: Roland EV-5, (default) , Roland EV-7, Yamaha FC-7, Korg (EXP-2 & XVP-10), Fatar (& Studiologic VP/25)

Control Pedal Func

This setting determines the functionality of a pedal that is attached to the Control Pedal input. The three settings are: Ctrl (use this to use the pedal with the Morph functionality), Ctrl + Swell (combines Morph control and Organ Swell) and Ctrl + Volume (combines Morph control and the main volume of the Stage 2).

Range: Ctrl (Default), Ctrl + Swell, Ctrl + Volume

Swell Pedal Type

This setting configure the Swell Pedal. See "Ctrl Pedal Type" above for details.

Range: Roland EV-5, (default) , Roland EV-7, Yamaha FC-7, Korg (EXP-2 & XVP-10), Fatar (& Studiologic VP/25)

Swell Pedal Func

This setting configure the Swell Pedal destination. Set this to Swell if you want this pedal to act as a Swell pedal for the organ, or to Volume if should control the volume of all the Stage 2 instruments.

Range: Swell (Default), Volume

Memory Protection

This is set to "On" when Nord Stage 2 leaves the factory, meaning that you cannot save any changes to Programs or Synth Sounds. Set this to Off if you wish to store your own Programs. Menu settings and the five Live buffers are not protected by this setting.

Range: On (default), Off

Sound Menu

Hold Shift and press Program 2/Sound to access the Sound menu settings. Use the Page ◂ and ▸ buttons to navigate between the various menu items on the Sound menu. The Value Dial is used to change settings. When you are done, press Exit (Shift) to exit the menu.

Organ Key Click Level B3

This sets the level of the Key Click for the B3 organ model.

Range: Low, Normal (default) High

Organ Tonewheel Mode

Sets the level of tonewheel crosstalk and cable leakage artifacts of the B3 organ model.

Range: Clean, Vintage1 (default), Vintage2

Piano Pedal Noise Level

Sets the level of the Pedal Noise that can be turned on for selected pianos, if a Nord Triple Pedal is connected to the Stage 2.

Range: +/- 6 dB (0 dB default)

Piano String Res Level

Sets the level of the String Resonance feature that can be turned on for selected pianos (acoustic Med, Lrg and XL sizes).

Range: +/- 6 dB (0 dB default)

Synth Vibrato Rate

This determines the rate of the Synth Vibrato.

Range: 4.00 - 8.00 Hz (Default 6.00 Hz)

Synth Dly Vibrato Amount

This determines the amount of Synth Vibrato when any of the vibrato delay modes are used.

Range: 0-50 cent (Default value is 25 cent)

FX Rotary Speaker Horn Speed

This determines the speed of the rotary speaker treble horn.

Range: Low, Normal (default) High

FX Rotary Speaker Horn Acc

This determines the acceleration and retardation time of the rotary speaker treble horn.

Range: Low, Normal (default) High

FX Rotary Speaker Rotor Speed

This determines the speed of the rotary speaker woofer rotor.

Range: Low, Normal (default) High

FX Rotary Speaker Rotor Acc

This determines the acceleration and retardation time of the rotary speaker woofer rotor.

Range: Low, Normal (default) High

FX Delay Mode

This sets if the delay should change the pitch on sounding repeats in the fashion of an analog delay, if the Rate/Tempo knob is adjusted, or not. When set to Normal, the pitch does not change if the Rate/Tempo is changed.

Range: Analog (Default), Normal

MIDI Menu

Hold Shift and press Program 3/MIDI to access the MIDI menu settings. Use the Page ◂ and ▸ buttons to navigate between the various menu items on the MIDI menu. The Value Dial is used to change settings, the Slot buttons to switch between A and B where applicable. When you are done, press Exit (Shift) to exit the menu.

MIDI Control Local

MIDI Local control determines if the Nord Stage 2 keyboard and front panel controls should control internal instruments and programs or only transmit MIDI. Local On is the normal “play mode”. In Local Off mode, the front panel and keyboard actions are transmitted via MIDI only and do not control the internal sound(s) directly.

Range: On (Default), Off

ℹ *Local always defaults back to Local On every time the Nord Stage 2 is powered on.*

MIDI Global Channel

This sets the transmitting and receiving MIDI channel for the Global Channel. The Global Channel transmits all keyboard, pedal and panel actions as MIDI signals. It can also be used as a receiving channel with full control of the entire Stage 2.

Range: MIDI 1-16, USB1-USB16, Off (Default USB 1)

MIDI Slot A/B Channel

This sets the receiving MIDI channel for Slot A/B.

Range: MIDI 1-16, USB1-USB16, Off (Default Off, Slot A and B)

MIDI Organ A/B Channel

This sets the receiving MIDI channel for the Organ section A/B. If a channel is selected here, you can assign the corresponding instrument to no KB Zone at all, that is make it active but available only through MIDI.

Range: MIDI 1-16, USB1-USB16, Off (Default off)

MIDI Piano A/B Channel

This sets the receiving MIDI channel for the Piano section A/B. If a channel is selected here, you can assign the corresponding instrument to no KB Zone at all, that is make it active but available only through MIDI.

Range: MIDI 1-16, USB1-USB16, Off (Default off)

MIDI Synth A/B Channel

This sets the receiving MIDI channel for the Synth section A/B. If a channel is selected here, you can assign the corresponding instrument to no KB Zone at all, that is, make it active but available only through MIDI.

Range: MIDI 1-16, USB1-USB16, Off (Default off)

MIDI Dual KB Channel

This sets the MIDI channel for receiving MIDI from an external keyboard when using Dual KB mode - see page 15.

Range: MIDI 1-16, USB1-USB16 (Default MIDI 16)

MIDI Ctrl Change Mode

This allows you to set if you want Nord Stage 2 to transmit and/or receive MIDI Controller Messages or not on the Global channel.

Range: Off, Send, Receive, Send & Receive (Default)

MIDI Prog Change Mode

This allows you to determine whether you want Nord Stage 2 to transmit and/or receive MIDI program Change Messages, or not on the Global channel.

ℹ *This applies to the “internal” Programs in the Stage 2, not the program change messages that the Extern section can be set to transmit.*

Range: Off, Send, Receive, Send & Receive (Default)

Send MIDI Ctrl

You can perform a dump of all parameters as their MIDI Controllers for the selected Slot. Hit Store to perform the transmission.

Range: Slot A, Slot B

Dump Program

This allows you to do a MIDI System Exclusive dump of the currently selected Program or of all the 400 Programs of the internal memory. The Live buffers are not included. Press the Store button to start the transmission.

Range: One, All

Dump Synth

This allows you to do a MIDI System Exclusive dump of the current Synth settings in the focused Slot or of all the 300 synth sounds in the Synth memory. Press the Store button to start the transmission.

Range: Slot A/B, All

Extern Menu

Hold Shift and press Program 4/Extern to access the Extern menu, where you can find settings and functions relating to the Extern section. Use the Page ◂ and ▸ buttons to navigate between the various menu items on the menu and use the Value Dial to change settings. When you are done, press Exit (Shift) to exit the menu.

ℹ *Most items on the Extern menu have separate entries for Slot A and B.*

ℹ *Most settings from the Extern menu are saved with a Program. The only exceptions are the "Extern MIDI A/B Channel" if Extern MIDI Mode is set to Global, and the "Send on Load" function which always is global.*

Extern MIDI Mode

The Extern MIDI Channel can be set in two different manners, either globally, or independently for each program. When "Global" is selected, the Extern MIDI A & B channels will be the same for all programs. If program is selected, the Extern MIDI A & B channel setting will be saved with each Stage 2 program.

Range: Global, Program (default)

Extern MIDI A/B Channel

This sets the Extern section's transmitting MIDI channels.

Range: MIDI 1-16 (MIDI 14 default for Slot A, MIDI 15 is default for Slot B), USB1 - USB16,

Extern MIDI A/B Volume

The Extern section can send MIDI Volume messages (0-127), allowing you to control the level of an external device.

Range: Off (Default), 0-127

Extern MIDI A/B Prog Change

The Extern section can transmit MIDI program Change messages (0-127), allowing you to change programs on external devices.

Range: Off (Default), 1-128

Extern MIDI A/B Bank Sel cc 00

This allows you to set a value for a MIDI Bank Select message on Control Change address 00 (cc 00).

Range: Off, 0-127

Extern MIDI A/B Bank Sel cc 32

This allows you to set a value for a MIDI Bank Select message on Control Change address 32 (cc 32).

ℹ *There are many different variations between instruments in how Banks are numbered and accessed via MIDI. Please consult your other unit's manual.*

Range: Off (Default), 0-127

Extern MIDI A/B CC Number

This decides which MIDI Controller number the Extern section should be transmitted when MIDI CC is activated.

Range: MIDI CC 0-119 (Default is 2)

Extern MIDI A/B CC Value

This will transmit values for the selected MIDI CC number.

Range: Off (Default), 1-127

Extern MIDI A/B Send Wheel

This setting toggles if the Stage 2's Modulation Wheel should transmit Mod Wheel MIDI data (CC 1) or not.

Range: Yes (Default), No

Extern MIDI A/B Send A.Touch

This setting toggles if the Stage 2's After Touch should transmit Channel Touch MIDI data or not.

Range: Yes (Default), No

Extern MIDI A/B Send CtrlPed

This setting toggles if a control pedal connected to the Stage 2's CTRL Pedal input should transmit Expression MIDI data (CC 11) or not.

Range: Yes (Default), No

Extern MIDI A/B Send Swell

This setting toggles if a control pedal connected to the Stage 2's Swell Pedal input should transmit Foot Controller MIDI data (CC 4) or not.

Range: Yes (Default), No

Extern MIDI A/B Vel Curve

Use this setting to adjust the velocity response curves that applies to the Extern section.

Range: Soft , Norm, Hard

Extern MIDI Send on Load

This setting toggles if any settings for the Program Change, Volume or MIDI CC messages in the Extern section should be automatically transmitted from the Stage 2 when a Program is selected, or not.

Range: Off (Default), On

Extern MIDI Soft Thru

Incoming MIDI that matches the Global or Slot A/B channels can be re-routed on the Extern channel to the Stage 2's MIDI OUT jack or the USB interface, if the Extern section is active on the current Program. This setting determines if this re-routing should apply or not.

Range: Off (Default), On

12 Nord Sound Manager

The Nord Sound Manager is the application that allows you to organize the various memory areas, the partitions in the Nord Stage 2. It is also used to download pianos or programs to the Nord Stage 2 or to upload any of these items - called sounds - from the Nord Stage 2 memory to the computer hard drive. The Nord Sound Manager provides access to various methods to download the sounds to the unit and a function to backup and restore the entire Nord Stage 2 memory.

System requirements

The Nord Sound Manager is compatible with computers running Mac OSX 10.4 or later, Windows XP, Windows 7 and Windows Vista. If you run the Nord Sound Manager on a Windows computer, you also need a Clavia USB Driver of version 3.0 or later installed.

ℹ *Nord Stage 2 OS Updates, USB drivers and instructions on how to install these are available at the www.nordkeyboards.com website and on the DVD that accompanies this unit.*

Installation

USB Driver

ℹ *Mac OSX user may skip this section*

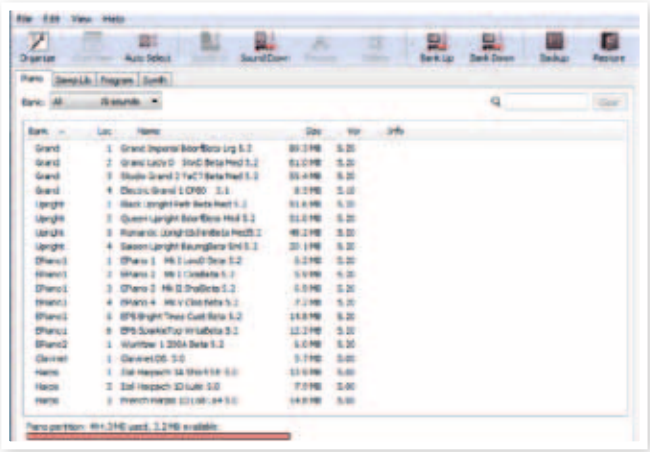
1. If you use a Windows computer (XP, Vista or 7), locate the Clavia USB Driver v3.0 Setup.exe on the DVD that accompanies the unit and double click on this file.
2. Follow the instructions on the screen.
3. After the files have been installed, the driver will be activated when you connect the Nord unit. Do this by connecting a USB cable between the Nord instrument and your computer.
4. When the Nord unit is connected to the computer, the driver will be automatically activated and a confirmation will appear in the notification area in the Windows task bar.

Sound Manager

1. Windows users: Open the Nord Sound Manager folder on the DVD, launch the “Nord Sound Manager v5.x Setup.exe” and follow the instructions carefully. The Nord Sound Manager can be accessed from the start menu when the installation procedure is finished.
2. Mac OSX users: Open the Nord Sound Manager folder on the DVD, double-click on the “Nord Sound Manager 5.x.dmg” and then drag the Nord Sound Manager application from the virtual hard drive to your “Applications” folder.

⚠ *The files mentioned for the driver and application installations can also be downloaded from the www.nordkeyboards.com website. Please visit our website from time to time to check for any updates.*

Overview



You can work with the contents of the Piano, the Sample. the Program and the Synth partitions. These are accessed from the tabs.

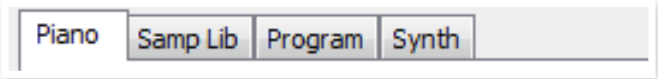
If no Nord Stage 2 is connected to the computer, pages, icons and memory locations will be grayed out.

⚠ *The actions that take place in the Nord Sound Manager will affect the memory in the Nord Stage 2. The Manager is on-line with a connected Nord Stage 2 at all times; any changes that you perform in the Manager will immediately be executed in the Nord Stage 2. If you e.g. delete a piano or a Program from the list in the Nord Sound Manager, that same sound will also be deleted from the Nord Stage 2 Flash memory.*

The Toolbar

The Toolbar gives you direct access to some of the more frequently used functions in the Nord Sound Manager. Clicking on an icon will activate one of these functions, and a dialogue will often appear asking for confirmation or further instructions from you.

The Tabs



Select the partition that you wish to work in with the Tabs. The Piano tab allows you to change the content of the piano partition, the Samp LIb tab allows you to access the sample partition and the Program and Synth tabs allows you to organize the programs and synth sounds. The individual pianos, samples or programs will be referred to as “sounds” in this manual and in the application itself.

☼ *Press Ctrl+Tab on the computer keyboard to cycle between the tabs.*

The lists can be ordered according to location, name, size, version and date, in ascending and descending order. Just click on a headline to select a preferred view.

Partition Memory Indicator

The memory indicator at the bottom of the window indicates how much memory is being used in the selected partition. The red area shows the used memory, green indicates space that is available for new sounds.

Right-Clicking

If you right-click on a sound, a context menu will provide the following options:

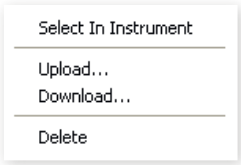
Select in Instrument

This will select the chosen sound in the Manager list, to be instantly accessible on the Nord Stage 2.

Upload

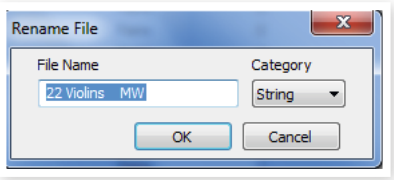
This will upload the selected sound from the Nord Stage 2 to the computer hard drive to a folder of your choice.

Download



This is only available if you right-click on an empty location that does not contain a sound. This allows you to choose a file on the hard drive, to be downloaded to the location in the Nord Stage 2.

Rename



This allows you to rename, and assign a category to a Program. Characters supported are: a-z, A-Z, 0-9 and a hyphen (-) and the name can contain up to 16 characters. Any other characters will not be displayed in the Sound Manager lists.

🛈 *Pianos or samples cannot be renamed, this option will not be available if you right-click on any of these.*

Delete

This will delete the selected sound(s) from the Nord Stage 2 memory.

File Formats

The Nord Sound Manager creates and/or uses files with the Nord Stage 2, with the following extensions:

- .npno - These are the piano files from the Nord Piano Library.

🛈 *The Nord Stage 2 is only compatible with piano files of version 5 or later.*

- .nsmp - These are the sample files from the Nord Sample Library.
- .ns2p - These are the Stage 2 Program files.
- .ns2s - These are the Synth sounds.
- .ns2b - This is the extension used for the Nord Stage 2 backup files.

Just as any other computer file on your hard drive, these files may be renamed, emailed, copied, moved, lost or even stored in a safe location if an evil computer crash suddenly decides to take your hard drive for ride.

The Quick Tour

Let's get acquainted with some of the functions in the Nord Sound Manager.

Transfer pianos to the Stage 2

When the Nord Stage 2 leaves the factory, the Piano partition is filled with sounds. In order to be able to download additional pianos, you may have to delete some of the factory pianos. If you ever want to reload any deleted pianos, they are available on the DVD that was included with the Nord Stage 2, or available as a download from the www.nordkeyboards.com web site, in the Libraries area.

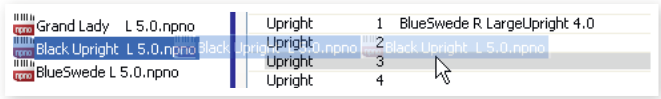
Deleting a piano

3. Connect the Nord Stage 2 to the computer and launch the Nord Sound Manager.
4. The Piano tab will open and the current content of the piano partition in the Nord Stage 2 will be displayed.
5. Select a piano to delete and press the Delete icon in the toolbar.

You can also right-click on the sound and choose the Delete option or use the backspace or delete keys on the computer keyboard.

6. You will be asked to confirm your intentions and then the piano in the Nord Stage 2 will be deleted.

Download a new sound



1. Using drag and drop: Open the folder on the computer hard drive where the new sound is located.
2. Make sure that the Sound Manager window and the folder are visible on the screen.
3. Drag the new sound to the white area in the Sound Manager list. When the destination location will turn gray, release the mouse button.
4. The Clean Deleted Space process will start to prepare the memory and then the new piano will be downloaded to the Nord Stage 2. If there isn't enough free space, a message will appear in the lower left text area in the Nord Sound Manager.

☼ *If the Organize option is active in the View menu, you can drop a sound on any free location in the bank. If this function is not active, the new sound will be automatically placed at the first free location in the bank. The various locations are selected using the Model selector on the Nord Stage 2.*

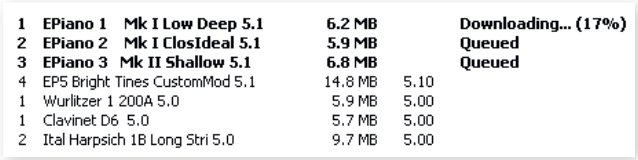
ℹ *The pianos are categorized and can only be added to the correct bank; electric pianos can not be added to the grand bank, the grand's cannot be dropped in the clavinet bank etc.*

1. Using the Toolbar or Menu command: Click on the Sound Down icon in the toolbar. The same command is also available in the File menu: Sound Download (Ctrl-D).
2. Browse to the folder on the hard drive where the desired sound is located, select it and click Open. The sound will now be added to its bank.

Download Queue

You can add several sounds, one by one, using the drop method, or with the Toolbar or Menu commands. These sounds will be put in the download queue. The memory will be cleaned if needed and the files will be downloaded to the unit in the order they were added.

1. Select the desired partition that holds the type of sounds that you wish to load.
2. Drag a sound from the computer hard drive to the white area in the Sound Manager list.
3. Drag another sound to the white area in the Sound Manager list.


1 EPiano 1 Mk I Low Deep 5.1 6.2 MB Downloading... (17%)
2 EPiano 2 Mk I ClosIdeal 5.1 5.9 MB Queued
3 EPiano 3 Mk II Shallow 5.1 6.8 MB Queued
4 EP5 Bright Tines CustomMod 5.1 14.8 MB 5.10
1 Wurlitzer 1 200A 5.0 5.9 MB 5.00
1 Clavinet D6 5.0 5.7 MB 5.00
2 Ital Harpsich 1B Long Stri 5.0 9.7 MB 5.00

Files that are placed in the queue will be displayed in bold.

4. If you wish to cancel an ongoing queue, you can either delete all files that are queued or press the Cancel button. During the Clean process the Cancel option is not available.

Files waiting in the queue can be deleted from the queue if you change your mind. Right-click on the queued sound or use the Toolbar or Menu Delete command.

☼ *Files already in the unit can be moved or deleted during the processing of the queue.*

Upload sounds from the Nord Stage 2

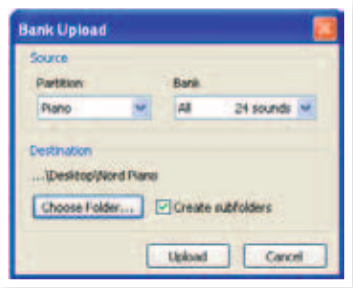
1. Select the desired partition that holds the sounds that you wish to store on the computer hard drive.
2. Select the bank and the sound. Shift-click will allow you to select several consecutive sounds; Ctrl-click will allow you to select nonconsecutive sounds. Here we have selected a few of the programs:

3. Click on the Sound Up tool or right-click on the selected sound(s) and select Upload. The dialogue will prompt you to browse to the desired destination folder on the hard drive. The upload process may take a few moments depending on the size of the sounds.

Upload a complete partition

1. Make sure that the desired partition (and bank) is focused in the Nord Sound Manager. You will also have the opportunity to change the source bank in an upcoming dialogue.

2. Click on the Bank Up tool, or select the File/Bank Upload menu command (Ctrl-Shift-U). Verify that the source bank is correct and browse to the desired destination folder on the computer hard drive.



You can also select All at the bottom of the bank list drop down. This will upload the entire content of the partition to the computer hard drive.

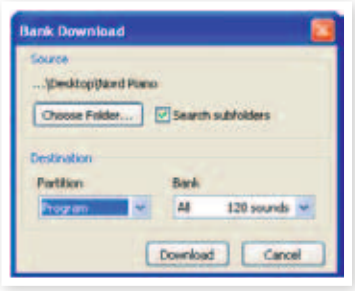
If the Create Subfolders option is checked, a folder structure - partition/bank/sounds - will automatically be created in the destination folder.

Download sounds to the Nord Stage 2

1. Click on the Bank Down tool, or select the File/Bank Download menu command (Ctrl-Shift-D).

2. Verify that the destination bank is correct and browse to the desired source folder on the computer hard drive.

ℹ *When you click on Download a dialogue appears to inform you that the content of the destination bank in the Nord Stage 2 will be replaced with that of the source file.*



If you select All in the destination bank drop down, you can replace all the sounds in a partition with those on a folder structure on the hard drive. If Search Subfolders is active, you can browse to the top folder of a structure as the parent of the source files.

Organize the program partition

By using drag and drop, you can organize the content of the Program partition with its 400 programs.

1. Make sure that Organize is turned on in the View menu.

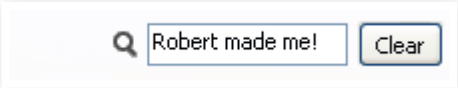
2. Select and drag a program from the destination location to the desired location.

If you drop a sound on a free location, the sound will be moved from the source location. If you drop on a location that is occupied, the two sounds will trade places.

3. Select a program and press the Ctrl-key on the computer keyboard. If you now drag this selection, the Program will be copied and pasted at the destination instead of just being moved.

Search Box

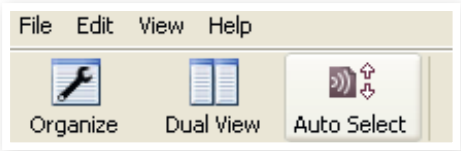
1. By entering one or several characters in the Search Box, you can filter out the content that is presented in the lists.



This provides you with a quick way to find duplicate programs, etc..

Auto Select

By clicking on the Auto Select icon in the toolbar, you toggle the Auto Select function on or off.

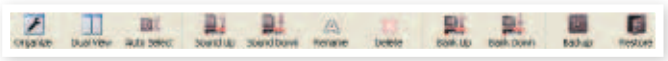


When Auto Select is turned on and you scroll through the Pianos or Program lists using the computer keyboard arrow keys, the sounds will automatically be selected in the Nord Stage 2.

☼ *Double-clicking on a Piano or Program in the Manager list will also select it in the Nord Stage 2.*

Sound Manager reference

Toolbar



Organize

When this option is active, the lists will show all the available locations in the selected partition/bank and not only the occupied ones. This will for instance make it possible to drag a file to a specific free location in the middle of the list. If this is inactive, only the occupied locations will be shown and re-arranging the order is not possible.

Dual View

When this option is checked, the window (if set to display the Program partition) will be divided in two lists. You can make the lists show separate banks with the drop-downs. Rearranging programs is simply a matter of drag and drop. Drag a program from one bank/list to another bank/list in either direction.

Auto Select

With this function active, scrolling through the piano or program list with the computer keyboard arrow keys will automatically select the sound in the Nord Stage 2.

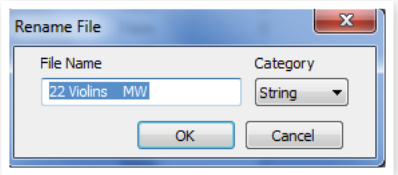
Sound Up

Use this function to upload one or several sounds from the Nord Stage 2 to the computer hard drive.

Sound Down

Use this function to download one or several sounds from the computer hard drive to the next available location in the selected partition.

Rename



This allows you to rename a Program. 16 characters can be used, and the supported characters are: a-z, AZ, 0-9 and the hyphen (-). Any other characters will not be displayed in the Sound Manager lists.

ℹ *Pianos or samples cannot be renamed so this function is not available if you have selected any of these.*

Delete

Allows you to delete one or several selected sounds. You will be asked to confirm your intentions. You may also use the delete or backspace key on the computer keyboard to perform this action.

ℹ *Any Program in the Nord Stage 2 that used a particular piano that you deleted will probably not sound at all, since it will be missing an important component.*

The space that a deleted piano occupied is not immediately available to other sounds, even though it is gone from the list and its location is free. The Flash memory needs to be cleaned to free up the space where the deleted sounds have been. When you add a new piano the cleaning process will be initiated automatically. You also have the option to manually start the cleaning process with the Clean Deleted Space command from the File menu.

ℹ

ℹ *Flashing LEDs in the Piano Type and Model section indicates that the piano that the current Program tried to use is not available in the Flash memory. Select another program or download the missing piano to the Nord Stage 2.*

Bank Up

This function will upload an entire bank of pianos or programs to the computer hard drive. The default source will be the currently active bank, but you may choose another partition and bank if you wish. Click on the Choose Folder button to select the destination on the hard drive.

If the Create Subfolders option is checked, a folder structure will automatically be created in the destination folder.

ℹ *If a folder with the same name as the source partition/bank already exists in the location on the hard drive, this folder's entire content will be replaced by the uploaded files from the Nord Stage 2.*

Bank Down

This function will download an entire bank of pianos or programs from the computer hard drive to the Nord Stage 2. The default destination will be the currently active bank, but you may choose another partition and bank if you wish. Click on the Choose Folder button to select the source on the hard drive.

⚠ *The destination bank in the Nord Stage 2 will be replaced by the content of the source folder.*

Backup

This will make a backup of all the pianos, programs, Live programs and the menu settings in the Nord Stage 2. The file that is created on the hard drive will have the extension .ns2b. Backing up the entire memory content in this manner will take some time, depending on the sizes of the pianos installed.

☼ *Backing up from the Nord Sound Manager is done in an incremental manner. Unless you change the name or the location of the backup file, only the pianos and/or programs that have been changed since the previous backup will be saved.*

The Nord Sound Manager will suggest a location for the backup, the first time this function is selected (in My Documents/Nord Sound Manager files/). If you rather save the backup file elsewhere, use the browser to pick another destination.

Restore

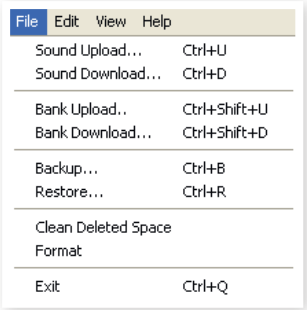
To restore a previously saved backup file to the Nord Stage 2, select this option and browse to a backup file on the hard drive (file extension .ns2b) and click Open.

⚠ *The restore function will begin after you have clicked Open and confirmed your intentions in the dialogue. All the content of a connected Nord Stage 2 will then be irrevocably replaced by the content of the backup file.*

Menus

In the Nord Sound Manager, the usual Windows and Mac OSX keyboard commands can be used. The menus can be accessed by pressing the Alt key and the underlined letter in the menu bar.

Most of the commands can also be accessed by pressing the Ctrl (on the Mac - Command) key together with the letter shown next to the command name in the menus.



File

Sound Upload (Ctrl+U)

Use this function to upload one or several sounds from the Nord Stage 2 memory to a folder on the computer hard drive.

Sound Download (Ctrl+D)

Use this function to download one or several sounds from the computer hard drive to the next available location in the selected partition.

Bank Upload (Ctrl+Shift+U)

This allows you to upload an entire bank or partition (pianos or programs) to a folder on the computer hard drive. Select the desired source (partition and bank) and the destination folder.

If you select All, all the banks in the partition will be uploaded. The hierarchical folder structure of the chosen partition - partition/bank/sounds - will be automatically created in the destination folder.

Bank Download (Ctrl+Shift+D)

Use this function to download an entire bank (or all banks) from the hard drive to the Nord Stage 2.

ℹ *The content of the source folder will replace the selected bank in the Nord Stage 2.*

Backup (Ctrl+B)

This will make a backup of all the pianos, samples, programs, the Live programs and the menu settings in the Nord Stage 2.

The file that is created on the hard drive will have the extension .ns2b.

Backing up the entire memory content in this manner will take some time, depending on the sizes of the pianos.

💡 *Backing up from the Nord Sound Manager is done in an incremental manner. Unless you change the name or the location of the backup file, only the pianos and/or programs that have been changed since the previous backup will be saved.*

Restore (Ctrl+R)

To restore a previously saved backup file to the Nord Stage 2, select this option and browse to a backup file on the hard drive (file extension .ns2b) and click Open.

⚠ *The restore function will begin after you have clicked Open and confirmed your intentions in the dialogue. All the content of a connected Nord Stage 2 will then be irrevocably replaced by the content of the backup file.*

Clean Deleted Space

This function will clean up the space where any previously deleted pianos or programs have been. This is done in order to make this deleted memory space available to new additions.

ℹ *Cleaning is automatically done if you download a new piano or program to the Nord Stage 2, but this menu command makes it possible to manually start the cleaning process.*

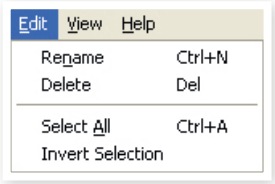
Format

This is a radical function; it will format the entire partition that is in focus. All the sounds in the partition will be deleted. You will be asked to confirm your intentions.

Exit (Ctrl+Q)

Exits the Nord Sound Manager application.

Edit



Rename (Ctrl+N)

This allows you to rename a Program or a Synth sound. 16 characters can be used, the supported characters are: a-z, A-Z, 0-9 and the hyphen (-). Any other characters will not be displayed in the Sound Manager lists.

Renaming also allows you to change or set the category that each program and synth sound can be labeled with.

ℹ *Pianos cannot be renamed so this function is not available if you have selected any of these.*

Delete

Allows you to delete a selected item(s) from the Nord Stage 2 memory. You will be asked to confirm your intentions.

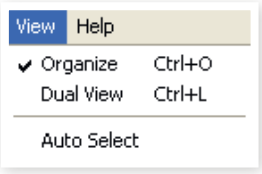
Select All (Ctrl+A)

Select all items in a bank/partition.

Invert Selection

This will deselect the original selection and then select all the other items in the list.

View



Organize (Ctrl+O)

When this option is checked, the lists will show all the available locations in the selected partition/bank and not only the occupied ones. This will for instance make it easier to drag a file to a specific free location in the middle of the list. If this is unchecked, only the occupied locations will be shown.

Dual View (Ctrl+L)

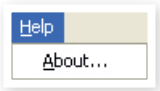
When this option is checked, the window will be divided in two lists. The two lists makes it easy to move programs from one location to another. You can make the lists show separate banks with the drop-downs. Rearranging programs is simply a matter of drag and drop. Drag a program from one bank/list to another bank/list in either direction.

💡 *Press the Ctrl-key on the computer keyboard to copy a selection to the destination during a drag and drop operation.*

Auto Select (Ctrl+K)

When this function is active, pianos, samples or programs will be automatically selected in the Nord Stage 2 when you browse through the sounds in the Manager list, with the computer keyboard arrow keys.

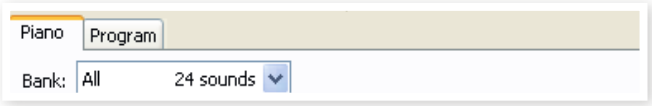
Help



About

Brings up the About box with a information regarding the version of the Nord Sound Manager. You will also see a list of compatible instruments and OS versions.

Tabs



Piano – Program

Use the tabs to select the desired partition. Type Ctrl+Tab on the computer keyboard to cycle between the tabs. The drop down menu is used to select the desired bank within the piano or program partitions. The content of the partition will be presented in the list.

Search Box

Enter a phrase to quickly present any sounds that contains the characters. Press Clear to clear the filtering and show all entries again.

Loc - Location

The banks are organized in locations; the number of locations varies for the different bank types.

Name

The name of the item.

Category

Shows the assigned category for the programs.

Size

Shows the file size of the pianos. This may be useful if you need to know how much space e.g. a particular piano occupies in the piano partition. This unit is not shown in the program lists.

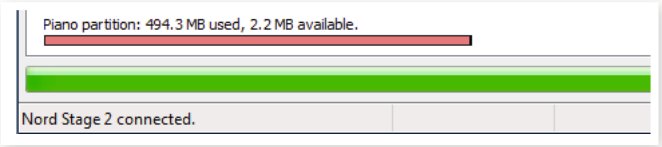
Ver – Version Number

This indicates the version number of the actual sound format. Older OS versions may not be able to use sounds in a more recent format.

Info

This area may contain error information about broken, corrupted or rejected files, in the unlikely event that something has happened with a particular piano in the Nord Stage 2 memory.

Footer Area



The footer area is located at the bottom of the Nord Sound Manager window.

Partition Memory Indicator

This indicates the usage of the selected partition's memory. The red area shows the used memory and the green area indicates space that is available for additional sounds.

Cancel Button

Use this function if you need to cancel a process that is in progress. Certain functions like e.g. a restore process cannot be cancelled.

Progress Bars

The two progress bars indicate the progress of an ongoing process. The upper bar shows the progression of the individual processes, and the lower indicates the status of the entire task.

Message/Text Area

The left part of the text area will present any confirmations or error messages from the Nord Sound Manager.

The right part will indicate of a Nord Stage 2 is connected to the computer and in communication with the Nord Sound Manager. The OS version of the connected Nord Stage 2 will also be displayed here.

Updates and sounds

Please visit our website at http://www.nordkeyboards.com to download any updates of the Nord Sound Manager and sounds that have been released for the Nord Stage 2. These items will be available as free downloads in the download area and in the Libraries area.

13 MIDI

Using MIDI

The Stage 2 is designed to be as flexible as possible when you use it with its MIDI capabilities. You can use it as a master keyboard to control other hardware or software sound sources, or as a set of individual sound engines to be played/controlled by outboard gear such as a sequencer. If you like, you can even do both these things at the same time.

There are four major parts in the Stage 2's MIDI functionality: Global, Slot, Extern and Instrument. Each of these are independently assignable to any of the thirty-two available MIDI channels: sixteen channels on the standard MIDI port and sixteen more MIDI channels accessed via USB MIDI. You can also choose to disable MIDI by selecting Off instead of a channel number. These channels are set in the MIDI and Extern menus, see page 44.

Global and Extern are used to transmit MIDI data to other units, while Slot and Instrument only receive MIDI data. All settings relating to MIDI functions are made in the MIDI Menu, except for the Extern settings that are made in the Extern Menu.

Stage 2	MIDI IN	MIDI OUT
Global	✔	✔
Slot A/B	✔	
Extern		✔
Instrument	✔	

Global

The Stage 2 Global MIDI is a transmitting and receiving part at the same time. It allows you to control every aspect of the instrument, just as if you were playing on its own keyboard and it can transmit keyboard, pedal- and panel actions.

Any MIDI data that enters the Stage 2 on the Global MIDI channel (or Global USB MIDI channel) will play the instruments that are active on the program that is selected on the Stage 2. If your program includes layers and/or splits, those aspects will be acknowledged in the same way as if you used the keyboard itself, when incoming MIDI "plays" the instruments in the program.

Global will transmit both keyboard- and panel-generated MIDI data. If you turn a knob on the synth section or use the modulation wheel, after touch, any of the connected pedals or pitch stick, these will generate MIDI data that is transmitted on the Global channel. This makes the Global the preferred choice as the MIDI source from the Stage 2 to a computer when you for example want to record panel changes in a sequencer.

ℹ *Global MIDI can be turned Off in the MIDI menu. This will disable both transmission and reception of MIDI from the Global component.*

Slot A/B

The Slot MIDI setting is for receiving MIDI only and allows you to control an entire Slot with instruments that are active, from external devices. Slot A and Slot B can be set to individual MIDI channels in the Stage 2 MIDI Menu.

Extern

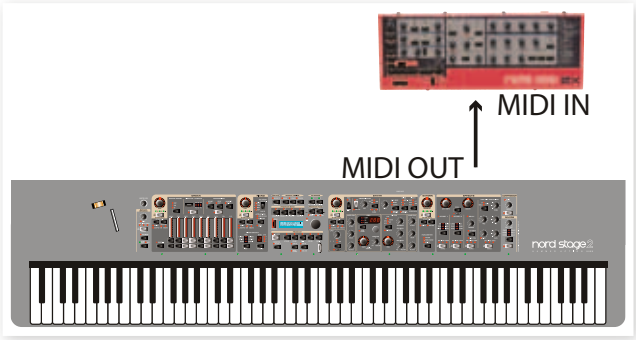
The Extern is the part to use when you want to integrate external MIDI units in your performance. The Extern chapter can be found on page 40. Look at the example on the following page.

Instrument MIDI

Each of the six instruments in the Stage 2 - Organ Slot A, Organ Slot B, Piano A, Piano B, Synth A and Synth B - can be set to receive on individual MIDI channels. This is done in the MIDI Menu. This can be used to have individual control of instruments, either from a other keyboards or by using the Stage 2 as big sound source in a sequencer/computer environment.

Let's have a look at a four different scenarios:

Playing/Controlling outboard gear with the Extern section



It is best to consider the Extern A/B sections, as simply another pair of onboard instruments, just like the Organ/Piano/Synth sections. Assigning zones/layers, enabling pitch stick and sustain pedal response, etc., are all done in exactly the same manner as with any of those other instrument sections.

It is also possible to store desired "initial values" of things such as Program Change, Bank Select, or Volume, for the Extern A/B slots. Additionally, the Extern section provides a rotary encoder which is assignable to the MIDI CC# of your choice. You can optionally choose to have data stored either on a global or per-program basis.

1. Select a Stage 2 program from which you wish to play external sounds.
2. Set the Extern A section and the external device to the same MIDI channel.

⚠ *Make sure that the Extern channel is not the same channel as the Stage 2 Global channel. If it is, set Global to another channel.*

3. Activate the Extern Section and assign it to the desired zone(s).
4. Play in that zone on the Stage 2 and you should hear your external device.

ℹ *There may be settings/options on your external MIDI units that affect how they react to incoming MIDI data; please check the documentation you have for your other units.*

5. Set Octave Shift, Sust Ped and P Stick as needed.
6. Press the Extern Parameter Select repeatedly until the Prog Change LED is lit. Turn the Extern encoder knob until it has selected the external device program, which you wish to use. If Bank Select data is needed to access that selection, these data will need to be manually entered into the Extern Menu.
7. Press the Extern Parameter Select repeatedly until the Volume LED is lit. Turn the Extern encoder knob to adjust the volume of the external MIDI unit by transmitting MIDI CC#7.
8. Store your new program to your Stage 2.

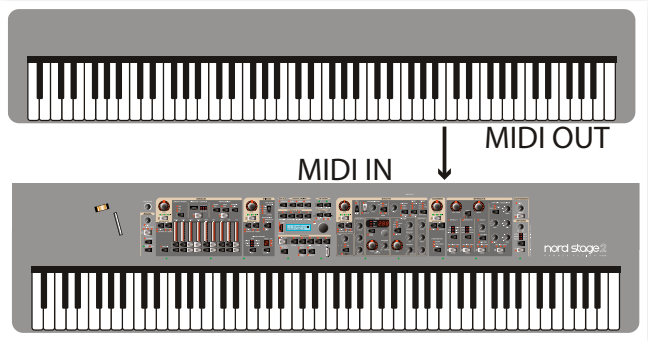
By activating Send On Load in the Extern Menu, whenever this particular Stage 2 program is selected, all of that data (program change, bank select, and volume) will automatically be transmitted from the Stage 2 to the external device. In fact, Nord provides an extra continuous controller message in the Extern menu. Simply set the CC number and the desired value and it will be transmitted along with the rest.

For yet another layer of integrated control, set up a Morph to control the Extern encoder via the mod wheel, aftertouch or a control pedal. By assigning the CC address of your choice to that encoder, it is possible to generate MIDI data streams to the external device seamlessly from the Stage 2. And due to the flexibility of the Morph function, the value range of those data streams can be limited to suit any need, and also move in either a positive or negative direction.

Just like the other instrument sections, the A/B Extern slots are completely independent from one another and can be programmed to do different things on the same or different zones at the same time.

ℹ *If you use the Panel Transpose feature on the Stage 2, the MIDI output from the Extern section will be transposed.*

Controlling the Stage 2 with an external keyboard or MIDI device



There are several options available if you wish to use a second keyboard or other MIDI device to control one or more Stage 2 instruments. Let's have a look at the Dual Kb feature first.

Dual Kb

With this function, it is possible to use an external keyboard to control the Slot B instrument sections exclusively.

1. Activate Dual Kb on the Stage 2 panel by holding Shift and press the Slot B button.
2. Set the Stage 2's Dual Kb MIDI channel to the MIDI channel of the transmitting MIDI device; this is done in the Stage 2 MIDI menu, the default setting is MIDI channel 16.
3. Activate one or more instrument sections on Slot B of the Stage 2.

⚠ *The On/Off setting of the Dual Kb feature will be stored for each program.*

When Dual Kb mode is active, the Stage 2's keyboard will play Slot A instruments, regardless of which Slot is focused on the panel, and Slot B will be played from the external MIDI device. Any controllers (pedals etc.) that you operate on the Stage 2 will not affect the Stage 2 instruments on Slot B.

With Dual Kb mode, it is easily possible to add a different keyboard action to your rig. Perhaps you have a hammer-action Stage 2, but want waterfall keys for organ playing, or you have a semi-weighted Stage 2, but want a weighted action for piano playing.

ℹ *If the Stage 2 is transposed using the Panel Transpose, the incoming MIDI on the Dual Kb channel will also be transposed.*

Slot MIDI control

A second option to control parts of the Stage 2 from a external device would be to use the Slot MIDI capabilities. While this functionality is similar to the Dual Kb feature, you can still use the Stage's keyboard for both slots if you wish.

If you want to control just one instrument on the Stage 2 with an external unit, a better option is to use the Instrument MIDI. This will be explained in the following section.

ℹ *A Slot MIDI channel can control the same instrument as an Instrument channel at the same time if you wish. If this is not desirable set the Slot MIDI or Instrument channel to Off.*

Global MIDI

The third option to control the Stage 2 via MIDI would be to use the Global MIDI capabilities. If an external devices transmitting MIDI channel is the same as the Stage 2 Global MIDI channel, the external device will control the entire Stage 2 in the same way as its own keyboard and panel does.

ℹ *Global MIDI can be turned Off in the MIDI menu. This will disable both transmission and reception of MIDI from the Global component.*

External Sync

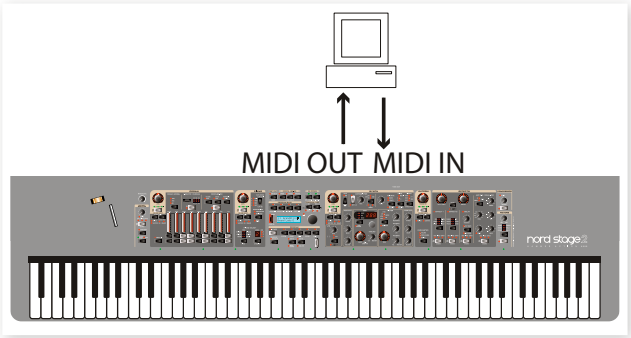
The Master Clock on the Stage 2 can be controlled by incoming MIDI clock messages. This is an automatic behavior, as soon as the Stage 2 receives MIDI clock on the MIDI input or the USB MIDI input, the Master Clock will be synchronized to the incoming external clock.

When the Master Clock is locked to an incoming clock, EXT will be displayed in the LCD if you press the MST CLK button, together with the incoming tempo in BPM.

Extern Section and MIDI re-routing

When an external device transmits MIDI notes to the Stage 2 and the Extern section is activated on the Stage 2, those incoming MIDI notes can be re-routed to the MIDI Output of the Stage 2, on the MIDI channel that is set for the Extern section. This allows you to control one external device from another external device. The incoming notes have to be on the same MIDI channels as set in the Stage 2 for the Dual Kb, the Slot A or Slot B MIDI channel setting or the Global MIDI channel setting. The Extern menu setting Soft Thru must also be "On".

Recording a Stage 2 performance to a MIDI sequencer



Here is how to record a Stage 2 performance just as you would play it from the unit - with all the pedal actions, morphing and other things to a MIDI sequencer. This is probably best achieved by using the Global MIDI channel.

1. Set the sequencer track to route back incoming MIDI on the Global Channel.
2. Set Local in the MIDI menu to Off on the Stage 2
3. Select the Program on the Stage 2 that you wish to use.
4. Start the recording on the sequencer.

The MIDI output on the Global channel will not care about any splits; it will produce MIDI note numbers from the entire Stage keyboard.

ℹ *The Panel or Global Transpose features will not influence the MIDI output on the Global Channel. The transpose value is instead added to the notes that appear at the MIDI input.*

Program Change

Incoming Program Change messages on the Global MIDI channel will change the programs on the Stage 2 if the MIDI Prog Mode parameter in the MIDI Menu is set to Receive or Send/Receive. This parameter also governs if Program Change messages should be transmitted when you select a Program on the Stage 2's panel.

ℹ *If you want to transmit program change messages to external units, use the Extern section.*

Using the Stage 2 as a sound source with a sequencer

The key to this functionality is to set each of the six Instrument MIDI channels and the Global channel to individual MIDI channels in the MIDI menu.

1. Enter the MIDI Menu and set individual MIDI channels to all the instruments and the Global Channel. You can mix MIDI- and USB MIDI channels as you wish.
2. Set MIDI Local to Off, this is done in the MIDI Menu.
3. Make the sequencer tracks route back MIDI on the six different channels that the instruments are set to.
4. Use the sequencer tracks to select which instrument to perform/record with.

ℹ *When Local is Off and the sequencer routes back the MIDI, you may find yourself in situations where the buttons and knobs seems to be inactive or stuck on the Stage 2 itself. This is normal behavior, if the sequencer sends MIDI data on a MIDI channel that the Stage 2 does not recognize. Just make sure that a sequencer track with for example the Global MIDI channel or one of the instrument channels is selected instead.*

The effect parameters, the performance controls (pedals, Pitch Stick etc) and the Morph will be transmitted on the Global MIDI channel, and should be re-routed in the sequencer to the individual Instrument channels.

Instrument MIDI will not be affected by any splits that you have set up on the Stage 2.

The Octave Shift or Panel Transpose functionality for the instruments will not affect incoming MIDI data to the Instrument MIDI. If you want to transpose the Stage 2 instruments, do this on the sequencer tracks.

MIDI Input Only

When an instrument is assigned to a MIDI channel, this opens up a powerful feature: the MIDI Input Only mode. This allows you to activate an instrument on the Stage 2, without controlling it from the keyboard. It will only be played from incoming MIDI, but the Stage 2 panel remains active to allow you to change any settings to the instrument's sound.

1. Hold the Shift button and press repeatedly on the Zone Select button until all green zone LEDs go out, but the instrument's other LEDs are still lit.

By combining these features and scenarios, you can create very flexible setups. You can have some Stage 2 instruments being controlled by incoming MIDI only, and other being controlled by the Stage 2 itself. There are no limitations to the channel settings in the MIDI menu; it is quite possible to have more than one receptor react to the same MIDI channel, which may (or may not) be what you want.

If you for example want to control one instrument in the Stage 2 on MIDI channel 4, it would be a good idea to make sure that no other part (Global, Slot or Instrument MIDI channel) in the Stage 2 is set to use that MIDI channel, unless you have a special reason for wanting to do that.

You will also be able to have situations, if MIDI Local is set to Off, where instruments are seemingly active on the Stage 2 panel, but you can't edit or play with these. Just make sure that the sequencer re-routes the keyboard and panel information to the correct MIDI channels that these instruments respond to.

Messages

The following MIDI messages can be transmitted and received from Nord Stage 2:

Note On/Off

• Note On and Note Off messages are transmitted and received.

Pitch Bend

• Pitch Bend messages are transmitted and received by Nord Stage 2.

Controllers

On the MIDI Menu (see page 44), you can select if the Nord Stage 2 should transmit and/or receive Control Change messages.

• If you have an Control/Expression pedal connected to the Organ Swell Input, this is transmitted and received as Controller 4.

• If you have an Control/Expression pedal connected to the Control Pedal Input, this is transmitted and received as Controller 11 (Expression).

• If you have a sustain pedal connected to the Sustain Pedal Input, this is transmitted and received as Controller 64 (Sustain Pedal).

• Almost all other controls (knobs and buttons) on the front panel are also transmitted and received as Control Change messages. This can be used to record your actions on the front panel into a MIDI sequencer. For a full list of which parameters correspond to which Controller number, look at page 58.

Keyboard Velocity

The Nord Stage 2 can transmit and receive Keyboard Velocity messages. Organ sounds will always be played back at nominal level regardless of incoming MIDI Velocity data. Release velocity is transmitted, but ignored on MIDI In.

Aftertouch

The Nord Stage 2 keyboard can transmit Aftertouch messages (sometimes called channel pressure). The player can apply more pressure on a key while it is down; and this will generate a signal that can be used to control parameters.

Program Change

In the MIDI Menu, you can select if the Nord Stage 2 should send and/or receive program Change messages on the Global channel that affects its internal programs. Program Change messages with the value 0-99 selects the programs in the active bank, Program Change messages 100-104 selects the 5 Live memories.

Bank Select

The 4 Program Banks in the Stage 2 can be remotely selected via MIDI, by transmitting a Bank Select Message that looks like this: CC 0, value 0, CC 32 value 0, 1, 2 or 3 (for banks A, B, C and D). The Bank Select should immediately be followed by a Program Change message, value 0-99.

Local On/Off

Local Off can be used to “disconnect” the keyboard and the panel on the Stage 2 from the sound engines. Turn Local Off if you experience “double-triggered” notes when you play; both from the keyboard internally and via the MIDI “loop”. Local On/Off is set in the MIDI menu, which is described on page 44.

Panic

If notes should hang using the Nord Stage 2 in a MIDI setup, all you need to do is hold down the Shift button and press the Panic/Program 5 button. This will execute an internal All Notes Off, and reset incoming CC messages.

USB MIDI

If you use a computer running Windows XP, Vista or Windows 7, you need to install the Nord v3.x USB driver to achieve the MIDI via USB functionality. This driver is available through Windows Update by just connecting the computer to the Internet and attach the Nord Stage 2. The driver can also be installed from the DVD that accompanied the unit or downloaded from the www.nordkeyboards.com website.

ℹ *Computers running Mac OSX have a native USB support for Nord units. No driver installation is necessary.*

MIDI Controller list

Nord Stage 2 Parameter	MIDI CC #
Organ Preset II	3
Organ Swell	4
Organ Drawbar 1	9
Organ Drawbar 2	14
Organ Drawbar 3	15
Organ Drawbar 4	16
Organ Drawbar 5	17
Organ Drawbar 6	18
Organ Drawbar 7	19
Organ Drawbar 8	20
Organ Drawbar 9	21
Organ Percussion Enable	22
Organ Model	23
Organ Vibrato Type	24
Organ Vibrato Enable	25
Organ Percussion Harmonic	26
Organ Percussion Speed	27
Organ Percussion Level	28
Organ Octave Shift	99
Organ Level	100
Organ Enable	101
Piano Type	8
Piano Model	29
Piano Slot Detune	5
Clav EQ 1	30
Clav EQ 2	31
Clav Model/Type	65
Piano Dynamics	33
Piano Acoustic	98
Piano Octave Shift	105
Piano Level	106
Piano Enable	107
Piano Pedal Noise	108
Synth Octave Shift	111
Synth Level	112
Synth Enable	113
Synth Glide Rate	34
Synth Arp On/Off	109
Synth Arp Mst Clk	12
Synth Arp Rate	102
Synth Arp Pattern	103
Synth Arp Range	104
Synth Voice Mode	36
Synth Unison	37
Synth Vibrato Mode	38
Synth Mod Envelope Attack	39
Synth Mod Envelope Decay	40
Synth Mod Envelope Mode	41
Synth Mod Envelope Velocity	42

Nord Stage 2 Parameter	MIDI CC #
Synth LFO Rate	115
Synth LFO Waveform	116
LFO Master Clk	13
Synth Oscillator Mode	43
Synth Waveform Select	44 (0-127)
Synth Oscillator Shape	45
Synth Oscillator Shape Mod	46
Synth Filter Frequency	48
Synth Filter Resonance	49
Synth Filter Vel/Env Mod	2
Synth Filter LFO Mod	51
Synth Filter KBT (Keyb. track)	52
Synth Filter Type	53
Synth Amp Envelope Attack	54
Synth Amp Envelope Decay	55
Synth Amp Envelope Mode	56
Synth Amp Envelope Velocity	57
Effect 1 Type	60
Effect 1 Source	61
Effect 1 Amount	62
Effect 1 Rate	63
Effect 1 Enable	69
Effect 1 Mst Clk	117
Effect 2 Type	70
Effect 2 Source	71
Effect 2 Amount	72
Effect 2 Rate	73
Effect 2 Enable	74
Effect 2 Mst Clk	118
Delay Destination	75
Delay Amount	76
Delay Rate	77
Delay Feedback	78
Delay Ping Pong on/off	79
Delay Enable	80
Delay Mst Clk	119
AmpSim Type	81
AmpSim Destination	90
AmpSim Drive	83
AmpSim Bass EQ	84
AmpSim Mid amount EQ	85
AmpSim Mid Range	6
AmpSim Treble EQ	86
AmpSim Enable	87
Rotor Destination	88
Rotor Drive	89
Rotor Speed	82
Rotor Stop	91
Rotor Enable	92
Compressor Amount	93

Nord Stage 2 Parameter	MIDI CC #
Compressor Enable	94
Reverb Amount	95
Reverb Size	96
Reverb Enable	97
Slot Focus	68
Pedal Sustain	64
Pedal Latch	66
Pedal Soft	67
Organ Swell Pedal	4
Ctrl Pedal	11
Rotor Speed Pedal	82
KB Gate Pedal	114
Master Level (if Swell Type is set to Volume in System Menu)	7

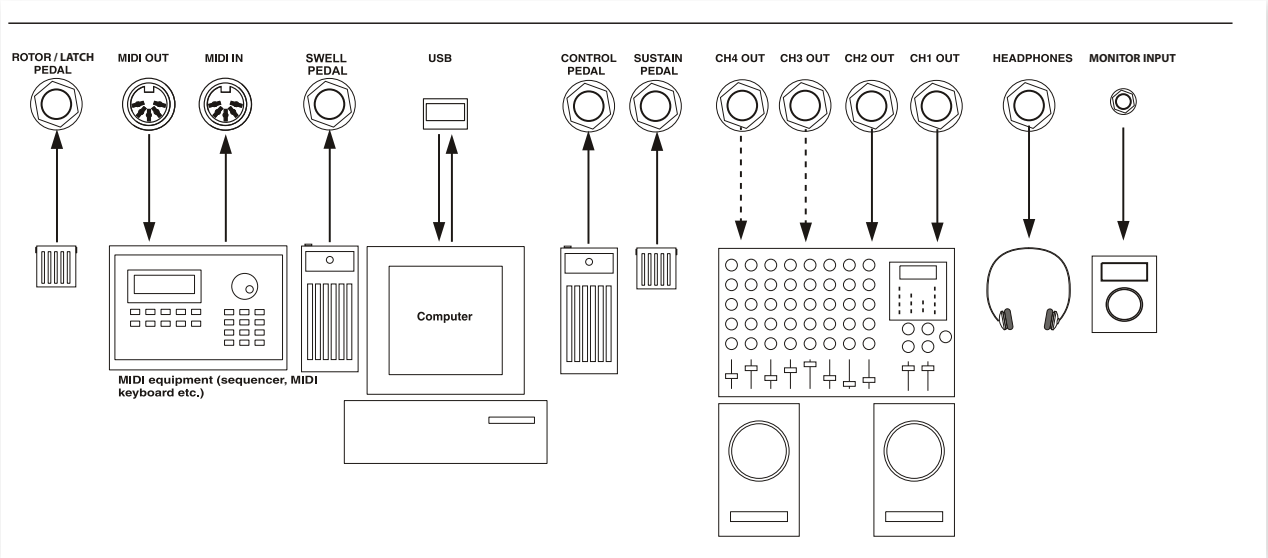
MIDI Implementation Chart

Function		Transmitted	Recognized	Remarks
Basic Channel		1 - 16	1 - 16	
Default Channel		1 - 16	1 - 16	
Mode	Default	Mode 3	Mode 3	
	Message	X	X	
	Altered			
Note		0-127	0-127	
Number	True Voice			
Velocity	Note ON	O, v= 1 - 127	O, v= 1 - 127	
	Note Off	O, v= 1 - 127	O, v= 1 - 127	
After	Key's	X	X	
Touch	Channel	O	O	
Pitch Bender		O	O	
Control Change		O	O	
Program Change		O, 0-127	O, 0-127	
True#				
System Exclusive		O	O	
System	Song Pos	X	X	
Common	Song Sel	X	X	
	Tune	X	X	
System	Clock	X	O	
Realtime	Commands	X	X	
Aux	Local on/off	X	X	
Message	All notes off	X	X	
	Active Sense	X	X	
	Reset	X	X	
Number	True Voice			

Mode 1: Omni On, Poly - Mode 2: Omni O, Mono - Mode 3: Omni Off, Poly - Mode 4: Omni Off, Mono - O = Yes - X = No

Model: Nord Stage 2 OS v1.x Date: 2011-02-01

Appendix: Connections



Audio connections

Headphones

This is where you connect a ¼" stereo connector from a pair of headphones.

Audio Outputs 1-4

The four audio outputs (CH Out 1-4) are line level and unbalanced. If you wish to connect the Nord Stage 2 in stereo to your audio equipment, you should use CH1 and CH2 outputs. Use audio cables with ¼" connectors to connect the Nord Stage 2 to an amplifier or recording equipment.

You can also route individual instruments to CH outputs 3 & 4 either in stereo or as two mono channels. This is done in the System Menu, read more on this on "System Menu" on page 42.

General guide on audio connections:
- Make all the connections before you turn on the power to your amplifier.
- Turn on the power to your amplifier last.
- Turn off the power to your amplifier first.

⚠ *Playing at a high volume level can result in hearing impairments such as permanent hearing loss.*

Monitor In

Use this to connect and monitor a signal from a metronome, an mp3 or a CD player at the Nord Stage 2's headphone output. This allows you to e.g. rehearse with the Stage 2 to pre-recorded music.

ℹ *Signals connected to this input will not be processed with the Stage 2's effects or appear at the line level output jacks1-4.*

USB Connection

The USB connection is used for the Nord Stage 2 to communicate with a personal computer in order to update the OS or to add or replace any of the piano sounds. The computer can run the Nord Sound Manager application, or be used to transfer the operating system if the unit needs to be updated.

The Nord Stage 2 can transmit and receive MIDI data via the USB interface.

ℹ *Computers running Microsoft Windows operating systems need a driver for the USB connection to work. The will be installed automatically if the computer is connected to the Internet when you connect the Nord Stage 2 to it. A manual installer for the driver can be found on the enclosed Nord DVD, or at the www.nordkeyboards.com website.*

MIDI Connections

MIDI In

MIDI connection used to receive MIDI data to the Nord Stage 2 from other equipment such as keyboards or computers.

MIDI Out

MIDI connection used for sending keyboard- and panel generated MIDI data from the Nord Stage 2 to other equipment such as sound modules or computers.

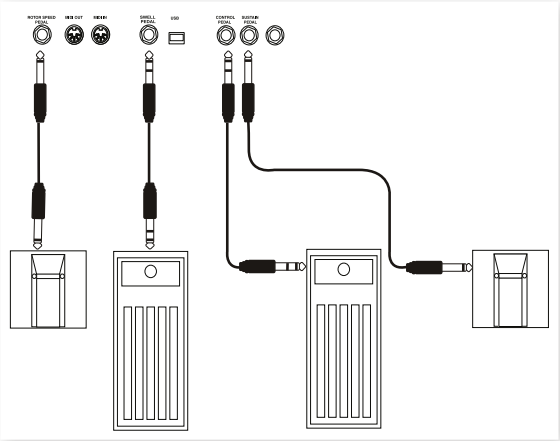
Music Stand

The rear panel on the Nord Stage 2 HA 88 and HA 76 has two brackets where the Music Stand (optional accessory) can be mounted.

Connecting Pedals

The Nord Stage 2 has four pedal inputs: one Control Pedal input (assignable to control various Nord Stage 2 parameters), one Organ Swell input, one Sustain Pedal input and one Rotor/Latch input. You can select for each instrument whether it should react to sustain or not. Connect the pedals as shown in the illustration below.

When connecting an expression-type pedal to the Control Pedal or Organ Swell input, you should use a stereo cable (Tip-Ring-Sleeve). Please note that the pedal must have a stereo output jack. Pedals from various manufacturers have different characteristics. To simplify setup, the most common pedal models (Roland, Yamaha, Korg and Fatar) are pre-configured in the Nord Stage 2, you simply select the type of pedal in the System menu, see page 43.



The Organ Swell input

You can connect an expression pedal to the Organ Swell input to control organ swell. For the B3 organ, the characteristic swell volume/frequency response is faithfully reproduced. If you want to control the entire Stage 2's volume with a pedal, this can be set in the System Settings to apply to a pedal connected to the Organ Swell input.

Using a Rotor Speed pedal

You can use a pedal connected to the Rotor/Latch input to switch between slow/stopped and fast rotor speed for the Rotary Speaker effect. This is the default setting for this input. Such a pedal can work in hold or toggle mode, which is set in the System Menu.

Using a Latch pedal

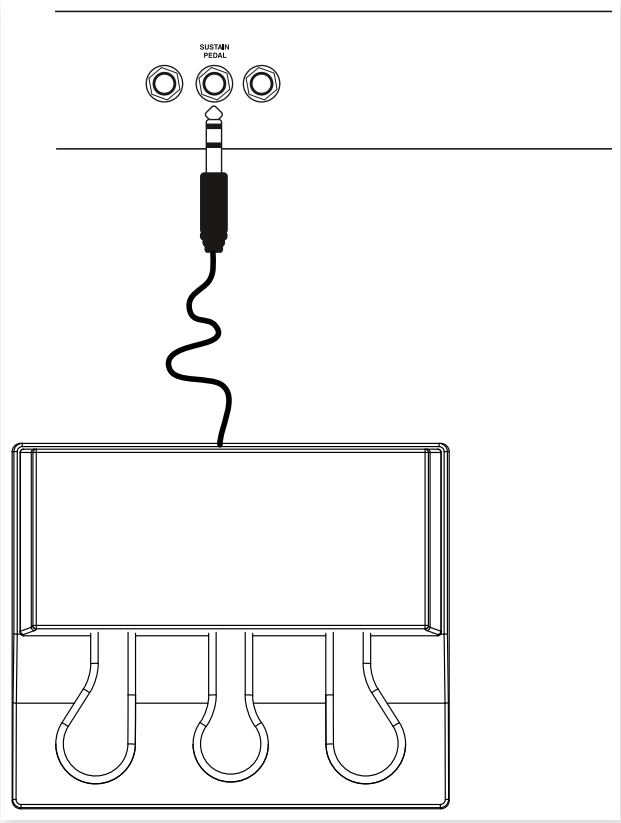
You can also use a momentary pedal connected to the Rotor/Latch input to operate as a latching pedal for selected instruments. This functionality can be activated for the instruments and the latch operation needs to be selected in the System Menu.

Sustain pedal

The Nord Stage 2 has one input for a sustain pedal. This input can be used with a standard momentary pedal like the included Nord pedal (Stage 2 HA88 and Stage 2 HA76), a Roland DP-6, Yamaha FC-4 etc..

Nord Triple Pedal

The Nord Stage 2 is compatible with the Nord Triple Pedal (sold separately). If this pedal is connected, you need to select this in the Nord Stage 2 System Menu, read more about this on page 42.



Connect the ¼" stereo connector from the Nord Triple Pedal to the Sustain Pedal connector on the Nord Stage 2.

Three in one

The Nord Triple Pedal has the functionality of three pedals in one unit.

The right pedal is the sustain pedal. If you operate this, all the notes that you play will sustain until the pedal is released again. This pedal can also introduce the pedal noise functionality, and it can be used with half pedaling techniques by pressing it down for parts of its travel on certain pianos.

The left pedal is the soft pedal, also known as the Una Corda. When you press this pedal, all the notes you play will be slightly lower in volume and also have a slightly more subdued tone quality.

The middle pedal is the Sostenuto/Latch pedal. By using this pedal, you can sustain selected notes, while other notes remain unaffected. Only the notes that are held down when the pedal is operated will sustain. Other notes that you play while keeping the pedal down will sound as if no pedal was operated at all.

Activate this feature for the individual instruments by holding Shift and press the right Octave button until the Latch Ped On LED is lit.

II Appendix: Factory Presets

Factory Presets and OS

Internal memory

The Operating System, Programs, Pianos and Samples in the Nord Stage 2 are stored in a Flash memory. A Flash memory keeps the data also when the power is turned off. Another big advantage is that you can replace data in the Flash memory at any time. This means that you will be able to download OS upgrades and Programs to your Nord Stage 2 from a computer or sequencer without needing to replace or add any new hardware. Nord Stage 2 also features a USB port for quick and easy download of new Pianos and Samples. The total capacity of the Stage 2's Flash memory is 500 Megabytes for the Pianos and 384 Megabytes for the Samples.

The internal sound memory of Nord Stage consists of 4 Program Banks, each holding 20 Pages with 5 Programs each. This gives you a total of 400 Programs. There are 5 separate Live programs, which will continuously store any changes as they are made, and remember these settings after the power is shut off. Furthermore, the Synth is capable of storing 300 synthesizer sounds.

The content of Program Bank A is duplicated in Bank D. This allows you to store any edits you make in either Bank A or D, without risking to overwrite anything that you might want to keep.

Factory presets

Every factory Program in the Nord Stage 2 can be replaced. To make sure you don't accidentally overwrite Programs you want to keep, it's a good idea to back up your sounds regularly on a computer. This is done with the Nord Sound Manager.

Restoring the factory content

The Nord Stage 2 factory setup is available as a Sound Manager backup file on the DVD that was included with the unit. This file is also available at the www.nordkeyboards.com web site. Read more on how to use a backup file to restore the content of the Stage 2 in the Sound Manager chapter, at "Restore" on page 50.

OS upgrades

The latest OS version for Nord Stage 2 is available for download at: www.nordkeyboards.com. Since the operating system can be updated to include new and/or improved functionality, please visit our web site from time to time to check if a new OS is available.

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